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Treatise on Harmony

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A

TREATISE ON HARMONY.

Arthur J. Froggatt

EIGHTH EDITION.

A

TREATISE ON HARMONY

AND THE

CLASSIFICATION OF CHORDS

WITH

QUESTIONS AND EXERCISES FOR THE USE OF STUDENTS

BY

JOHN STAINER,

MUS. DOC., M.A., MAGD. COLL., OXON.,

SOMETIME EXAMINER IN MUSIC IN THE UNIVERSITIES OF OXFORD CAMBRIDGE, AND LONDON.

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DEDICATED

TO

PROFESSOR MAX MÜLLER,

WHO,

THOUGH UNABLE TO DEVOTE HIMSELF TO THE
ART OF MUSIC

OWING TO THE CLAIMS MADE ON HIS TIME BY

OTHER FIELDS OF LABOUR,

FORGETS NOT TO ENCOURAGE BY HIS SYMPATHY AND KINDNESS

THOSE WHO ARE PRESSING FORWARD

IN ITS PATHS.

2000480

PREFACE TO THE EIGHTH EDITION.

ALL treatises on harmony have, or ought to have, but one object in view, namely, to assist the student in the art of grammatical part-writing; and so far as this result is obtained, books differing considerably in design and method may be considered as of equal merit. But thoughtful students require some *classification of chords* which shall be at once comprehensive and logical; and this little work was originally put forward for the purpose of supplying that want. I hope that the demand for an eighth issue may be considered a substantial proof of its success.

J. S.

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TREATISE ON HARMONY.

HARMONY.

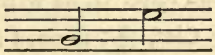
CHAPTER I.

1. A musical sound differs from a noise in that the vibrations which produce it are isochronous, or of periodical recurrence.

2. Sounds differ from each other in quality, pitch, duration, and intensity. With the first of these it is out of our province to deal in this work; and we need only consider the last, with reference to the notation used for its regulation.

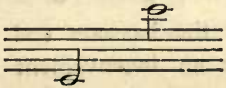
3. Pitch is dependent upon the quickness or slowness of the vibrations. Rapid vibrations produce a sound of a high or acute pitch: Slow vibrations, a sound of a low or grave pitch.

4. The relative pitch of sounds is represented to the eye by the position of notes on a stave of five lines and four spaces, thus:—

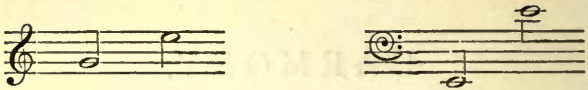


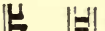
We here know that the latter of these notes is the sign of a higher pitch than that of the former.

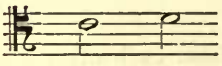
Lines placed temporarily above or below the stave are called Leger lines:—



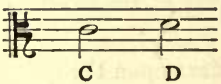
5. The absolute pitch is indicated by the addition of a clef:—



6. The C Clef  attaches the sound known as middle C to the line on which it is placed. There are several C clefs, but the Tenor Clef is the one most in use:—



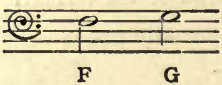
7. The Alto Clef is used for writing the Viola or Tenor-Violin part:—



The Soprano Clef is a C clef placed on the first line; but it is rarely found except in Full Scores, where it is used for the Treble voice part, the Alto clef being then used for the Contralto or Alto part.

8. The Treble is a G clef placed on the second line. It is a corrupt form of the letter G, as written in manuscript.

9. The Bass or F Clef, is used for the music given to bass instruments, such as the violoncello, bassoon, &c., and invariably for the bass voice part:—

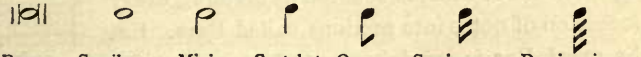


The high notes of the bassoon and violoncello, which would often require an inconvenient number of Leger

lines, are written in the tenor clef, but occasionally the high notes of the violoncello are written in the treble clef.

10. In order to simplify music, the Alto Clef has been very rightly superseded by the treble clef, for the alto voice part. But to give up the tenor clef, for the tenor voice part, is not a step in the right direction; because, if the treble clef is used in its place, it must be notified that the performer is to sing an octave lower, thus defeating the very object of a clef, which is to show the absolute pitch.

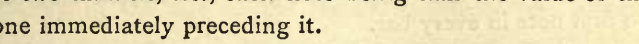
11. The relative Duration of Sounds is represented by the shape of the notes. Ex.:—



Breve. Semibreve. Minim. Crotchet. Quaver. Semiquaver. Demisemiquaver.

A breve is equal to two semibreves. A semibreve is equal to two minims, &c., each note being half the value of the one immediately preceding it.

12. The Rests, or directions for silence which correspond to the above notes, are respectively:—



13. A dot adds one half to the duration of the note or rest to which it is appended.

Ex. is a note equal to three minims.

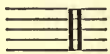
Ex. is a rest equal to three semiquavers.

A second dot adds half the value of the first dot, that is to say, one quarter, to the value of a note or rest to which it is appended.

Ex. is equal to seven crotchets; is a rest of seven semiquavers. A note or rest thus lengthened is said to have a double dot.

14. The absolute duration of a sound may be determined by the use of a metronomic sign. Ex. 𝅗𝅥 = 100 M.M. signifies that each minim, in the movement to which it is prefixed, will equal one beat of the pendulum of Maelzel's metronome when the moveable regulator is placed at 100 on the index.* ♩ = 6 inches signifies that a crotchet is to equal in duration the length of time a pendulum (with *any* weight attached) six inches in length will require for each oscillation.

15. Music cannot exist without Accent and Rhythm. Accent, or the laying of stress on notes at regularly recurring intervals of time, is secured by dividing every succession of notes into sections called Bars. Ex.
A Bar.
The word Bar is used in two senses; first, for the name of the actual sign; secondly, for the portion of music lying between two such signs. An accent falls on the first note in every bar.

A Double Bar  denotes the close of a movement, or the temporary close which precedes a change of time or key. It is also generally placed after the direction termed a "repeat," *e.g.*

16. Rhythm is the correct grouping of properly accented notes into musical phrases or sentences.

17. Time in music is the distance between the accents. Since then Accent is indicated by bars, Time is determined by giving at the commencement of a movement the aggregate duration of the notes contained in each bar.

Time is Duple or Triple. If the accent occurs at equal intervals of time, the music is in Duple Time; if at un-

equal, in Triple Time. For example, if a bar is divided into 2, 4, 6 (two threes), or 8, the time is duple; if into 3, 6 (three twos), or 9, triple. An equal number of groups of three notes comes under the class Duple; an unequal number of groups of two notes comes under the class Triple. Such kinds of time are called Compound.

Time is expressed by C and ¢ for duple, or by fractional parts of a semibreve for duple or triple time, as $\frac{2}{4}$ two crotchets in a bar; $\frac{3}{4}$ three crotchets; $\frac{9}{8}$ nine quavers.

There are a few specimens of music containing five beats in a bar; in this measure, which is called Quintuple, there can be only one accent in each bar, and that of course on the first beat.

Time, in the sense of pace, is often expressed approximately by the use of the Italian words, *largo*, *adagio*, *lento*, *grave*, *andante*, *allegro*, *presto*, &c., with their diminutives and superlatives; and for greater definiteness with such qualifying words as *piu*, *assai*, *commodo*, &c.

The Italian words *forte*, *piano*, *sforzando*, *crescendo*, *diminuendo*, &c., are used in various ways to regulate the intensity of sound. It is unnecessary, however, to enlarge on this, or on some of the preceding subjects.

---

* The metronome of Maelzel is so constructed that the index-numbers represent the number of beats made by the pendulum in one minute of time.

CHAPTER II.

18. The ear feels that every sound, or succession of sounds, is capable of repetition at a certain distance above or below without any perceptible alteration or change, except in the pitch. The distance at which this repetition is found to take place is called the interval of an octave.

19. The Octave is divided into twelve parts called mean semitones, or commonly, semitones.

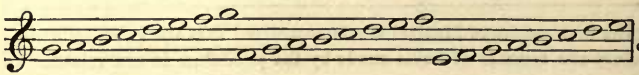
Two semitones make one tone. The word "degree" is used to express either a tone or a semitone.

20. A Scale is a succession of sounds which proceeds by single degrees, the nature of the degrees being determined by custom.

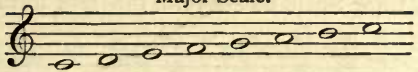
21. A scale consisting of semitones only is called Chromatic.

22. A Diatonic scale consists of a mixture of tones and semitones, and is of two kinds, major and minor. (When the word Scale is used by itself, a diatonic scale is to be understood). In the Major Scale the fourth and eighth degrees are semitones, the rest tones.

Taking a stave, and writing successions of eight notes, beginning from any line or space, it will be found that there is one note only, namely C, from which as a starting point the conventional arrangement of tones and semitones, termed the major scale, can be obtained, *e.g.*—



Major Scale.



The scale of C, therefore, is the normal scale, and hence the prominent position which it holds in musical treatises.

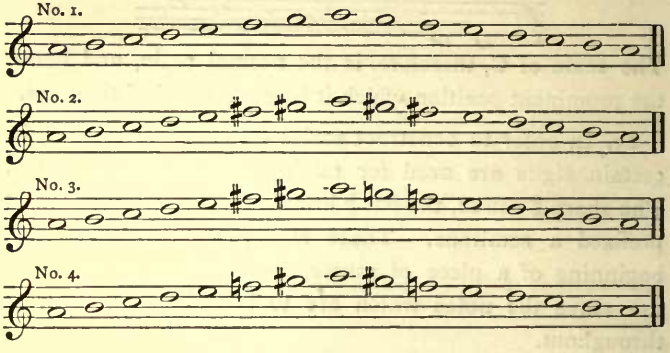
23. In order to construct scales on other notes than C, certain signs are used for raising and flattening notes. The sharp ♯ raises, the flat ♭ lowers, the note to which it is prefixed a semitone. These signs, when placed at the beginning of a piece of music, show by their position on the stave the notes which are to be raised or flattened throughout.

For the purpose of temporarily restoring a sharpened or flattened note to its position in the normal scale, a natural ♮ is used. Its duty is, therefore, twofold—to flatten a sharpened note, to sharpen a flattened note. A double sharp × raises a note a whole tone; a double flat ♭♭ flattens a note a whole tone.

24. The Clef, sign of Key, and sign of Time placed at the beginning of a movement are called collectively the Signature. But the sign of the time and the sign of the key are also called separately the time-signature and key-signature. By key is understood the pitch of the scale employed; *e.g.*, key A, key B, key C, &c.

25. Any of the signs ♯, ♭, ♮, ×, or ♭♭, occurring otherwise than in the signature are called Accidentals. The influence of an accidental extends through one bar, unless before the end of that bar it is contradicted by another sign. A doubly-sharpened note is reduced to a sharpened note by ♮♯, and to a natural by ♮♮. A doubly-flattened note is reduced to a flattened note by ♮♭, and to a natural by ♮♮.

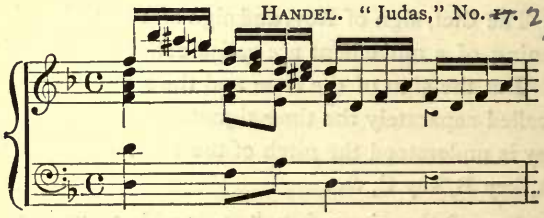
26. The Minor Scale has several different forms.



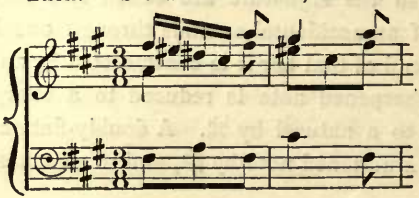
These are placed in chronological order, the first being one of the earliest forms of the minor scale, the last the most modern. It can scarcely be said that the first two forms are obsolete, for although rarely now used in their entirety, fragments are met with commonly enough.

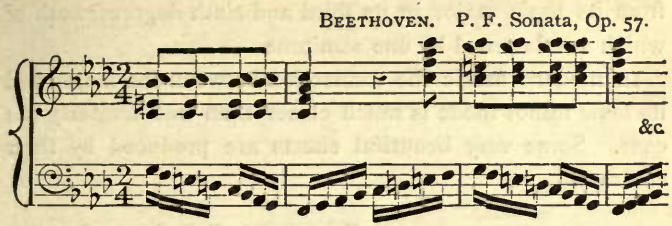
The following are Examples of the use of the form No. 2:

HANDEL. "Judas," No. ~~27~~ 27



BACH. "S. Matthew Passion," No. 10.





It will be seen that No. 3 is a compromise between Nos. 1 and 2, borrowing its ascent from No. 2, its descent from No. 1. It is not surprising that such a compromise should be gradually giving place to the beautiful form of No. 4, which has the advantage of having its ascent and descent exactly similar to each other, and of containing the ingredients of one of the most important chords in modern music. (See Chap. VII. § 161.)

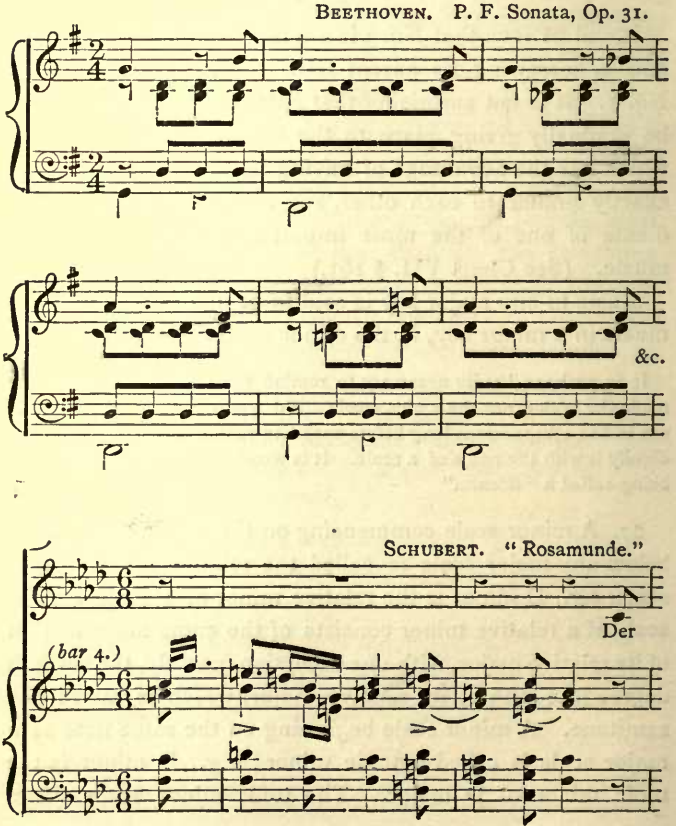
Music in any major key is said to be in the major mode; music in a minor key, in the minor mode.

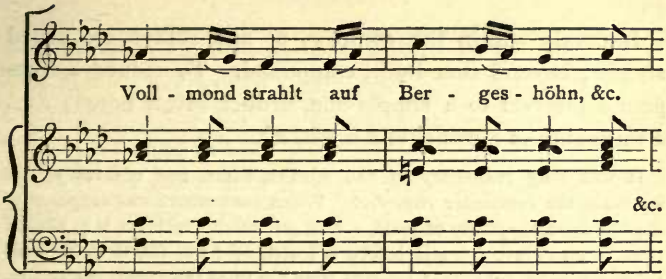
It is, perhaps, hardly necessary to remind the reader that music has made the scales, not the scales music. No. 4 of the above forms was in use in fine compositions long before theorists ventured to write it out and dignify it with the name of a scale. It is wonderful that it has escaped being called a "licence."

27. A minor scale commencing on the note a minor third below any major scale is called the relative minor of that scale, *e.g.*, D minor is the relative minor of F major. The scale of a relative minor consists of the same notes as that of its relative major, with one exception, namely, the seventh degree (the fifth of its relative major) which is raised one semitone. A minor scale beginning on the same note as a major scale is called a tonic minor; *e.g.*, D minor is the tonic minor of D major. The tonic minor scale differs

from its tonic major in its third and sixth degrees, both of which are flattened by one semitone.

In modern music the connection between the major and its *tonic* minor mode is much closer than was formerly the case. Some very beautiful effects are produced by their contrast.





INTERVALS.

28. The distance between any two notes is termed an Interval. Intervals are reckoned—

1. Upwards.
2. Inclusively.
3. By the number of names of notes they contain.

The first rule requires no explanation. No. 2 signifies that both boundaries are counted in; as C to E, a third. No. 3 is laid down to guard against the counting of intervals by their sound or appearance on a keyboard; *e.g.*, C to G♭ and C to F♯ are practically the same; but C to G♭ is a fifth, and C to F♯ a fourth, because the former contains five *names*, the latter four.

29. Intervals are found in their normal or unaltered state in the relation between a key-note and the other steps of a major scale, *e.g.*—

C to D is a major second.	If in the next octave above,	a major ninth.
C to E is a major third.	,,	a major tenth.
C to F is a major fourth.	,,	a major eleventh.
C to G is a major fifth.	,,	a major twelfth.
C to A is a major sixth.	,,	a major thirteenth.
C to B is a major seventh.	,,	a major fourteenth.
C to C is a major octave.	,,	a major fifteenth.

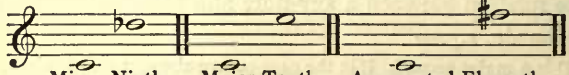
Intervals within the compass of one octave are called simple; beyond that limit, compound. To reduce a compound interval to a simple one, deduct seven notes; *e.g.*, a thirteenth is a compound sixth, &c.

It was long customary to call fourths, fifths, and octaves *perfect* intervals, the remainder *imperfect*. When consonance was supposed to depend upon simplicity of ratio, a fifth (of which the ratio is $\frac{2}{3}$) ranked next to an octave ($\frac{1}{2}$), and before a fourth ($\frac{3}{4}$); the fourth being considered a more consonant interval than the third ($\frac{4}{5}$). But, practically, none of these intervals are of so great value in harmony as the third; it is time, therefore, that fifths, fourths, and octaves were shorn of this unmeaning title, especially as music is already overburdened with technicalities. Much confusion also arose from this division of intervals, in consequence of the term "imperfect" being applied to the perfect intervals when contracted. For example; an imperfect fifth meant a minor fifth; but a sixth was called imperfect, whether major or minor.

30. All intervals are capable of expansion or contraction. By the former, intervals are converted from major into augmented; by the latter, from major into minor.

C to D♭ ... ... minor second.	C to D♯ ... ... augmented second.
C to E♭ ... ... minor third.	C to E♯ ... ... augmented third.
C to F♭ ... ... minor fourth.	C to F♯ ... ... augmented fourth.
C to G♭ ... ... minor fifth.	C to G♯ ... ... augmented fifth.
C to A♭ ... ... minor sixth.	C to A♯ ... ... augmented sixth.
C to B♭ ... ... minor seventh.	C to B♯ ... ... augmented seventh.
C to C♭ ... ... minor octave.	C to C♯ ... ... augmented octave.

Compound intervals are similarly named, *e.g.*—



Minor Ninth. Major Tenth. Augmented Eleventh.

To discover the nature of any interval, consider whether it has been altered from the major scale of its lowest note. If it has been made less, it is minor; if greater, augmented; if it remains unaltered, it is major. For example, E to C

is a minor sixth, because, in the scale of E, C♯ is used; F to B is an augmented fourth, because, in the scale of F, B♭ is used; C♯ to E♯ is a major third, because, E♯ is the third of the scale of C♯.

When the lower note is a sharpened note, which has no scale of its own, consider it as one semitone lower, when the interval can be easily determined, *e.g.*, C♯♯ to G♯ is a minor fifth, because the interval is one semitone less than C♯ to G♯, the normal fifth. When the lower note is a flattened note, which has no scale of its own, consider it as temporarily raised before determining the nature of the interval, thus C♭♭ to G♭ is an augmented fifth, because it is one semitone greater than the normal fifth C♭ to G♭.

A diminished interval is one which has been made a semitone less than minor, *e.g.*, C♯ to B♭ is a diminished seventh; so also is C♮ to B♭♭.

It will be seen from this last that diminished intervals are produced in two ways—either by making the upper note of a minor interval flatter, or by making the lower note of a minor interval sharper. Hence it is that some intervals have to be calculated from notes not having a diatonic scale of their own; thus, B♯ to A♮. In such cases, the nature of the interval is readily found by temporarily reducing the lower note; thus, B♮ to A♮ is a minor seventh, therefore B♯ to A♮, being a semitone less than minor, must be a *diminished* seventh.

An interval, two semitones less than minor, is said to be doubly diminished. Two intervals which, taken together conjointly (that is, overlapping), make up an octave are said to be complementary to each other; *e.g.*, a third and a sixth (as C to E and E to C); a fourth and a fifth (as C

to F and F to C); and so on. If both the notes which form an interval are in the scale of the passage in which it occurs, that interval is said to be diatonic; but if one of the notes, or both, should come from another scale, the interval is said to be chromatic. Therefore, F to B♮ is diatonic in the key of C, but chromatic in the key of F.

31. The following names are given to the different degrees of the major or minor scale in order that we may be able to speak of them irrespective of key or pitch:—

1st degree	tonic.
2nd „	supertonic.
3rd „	mediant.
4th „	subdominant.
5th „	dominant.
6th „	superdominant (or submediant).
7th „	subtonic (or leading note).

The supertonic is so named because it is one degree above the tonic. The superdominant is so called for its similar relation to the dominant. The subdominant and subtonic are both named after the degree below which they occur. The term submediant is said to have been applied to the sixth degree, because, if inverted, it would lie as a mediant between the tonic and a fifth below the tonic. If no better reason can be found for preserving the term, the sooner it is lost to use the better. The dominant is so named because harmonies placed upon it have a strong tendency to resolve into those of the tonic; the dominant, therefore, may be well said to "command" the key. See § 281 on the subject of the force of the dominant.

CHAPTER III.*

32. Melody existed before Harmony (using both words in their modern sense); the sounds, therefore, which were first used for the purpose of harmonization must have been taken from the component parts of the melody, that is to say, from the Scale.

33. A Chord, therefore, is defined as "a combination of notes taken from a scale, or sometimes (but rarely) from two closely-allied scales."

Further on will be found an explanation of a few chords derived from two closely-allied scales, see § 204.

Until the interval of a third is allowed to be the basis of all harmony, no theory of music can possibly be formed which will be true to facts. The old veneration for the perfections of the fourth and fifth, hardly yet extinct, helped to degrade thirds by calling them imperfect intervals; yet the greater number of those lovely chords which ravish us so much, and furnish us with an endless source of modulation (such as the chord of the diminished seventh and its inversions), contain neither the interval of a fourth or fifth between any of the component notes. All are thirds, or their inversions, sixths. If any interval ever deserved to be called perfect, it is the third. A major fifth by itself does not give us the means of judging whether we are in the major or minor mode. Except in barbarous music, the bare major fifth is never used, unless a composer, for the purpose of producing special effects, wishes to foster the impression of doubtfulness of mode. The fourth is less entitled to be called a harmony-producing interval than the fifth. The only simple interval, then, which may be said to form harmony, is the third, both in its natural state and inverted.

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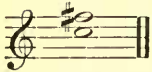
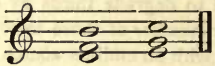
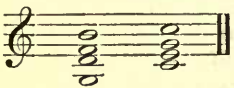
* The Student will do well to read at this point the rules for "figured bass" in the Appendix, and also to carry on the writing of exercises simultaneously with the study of the construction of chords; on every occasion in which a discord occurs, both in the examples and exercises, stating the ground-note, number of the inversion, and the names of the intervals which form the chord, reckoning from the ground-note.

34. If any interval smaller than a third be heard, it requires to be adjusted to a third before the ear is satisfied.

For instance, if C and D be struck on a pianoforte or harmonium, we must either move the C to B, making a third between B and D, or move the D to E, making a third between C and E.

35. This unsatisfactory effect of an interval smaller than a third is termed "discordant;" and the whole chord which contains it, a "Discord." The removal of the unsatisfactory effect by altering the chord so as to leave the ear satisfied, is termed a "Resolution."

The discordant interval may be implied or expressed. Thus,  contains no interval less than a third, but as the note D is implied, it is a discord. This will be more noticeable in treating of the inversions of the chord of the minor ninth.

The absence of one limb of a discordant interval gives great latitude to the resolution; for instance,  is not objectionable, because G is not expressed, whilst the following *is* objectionable,  See also § 255.

36. The simplest and most natural way of arranging chords is evidently to begin with the tonic, and to go on adding thirds from the scale, until the whole of the notes of the scale are exhausted. There are, of course, two entirely different sets of chords—one emanating from the major scale, the other from the minor.

Chords are easily and distinctively named after the largest interval contained in them before inversion.

37. But owing to the form which the scale has now assumed, one note (the tonic) will not be the only note

which appears a necessary starting-point for chord-making. The musical value of the subtonic as a note which has a natural tendency to ascend to the tonic, and which cannot of course be harmonized by the tonic, has involved the necessity for a subtonic harmony or chord. The note in the scale which presents itself at once as best adapted to the accompaniment of the subtonic, is the fifth or dominant. It may also be accompanied of course by the third above, but this note only strengthens the third below. The dominant and subtonic, therefore, act on each other. The dominant suggests the subtonic, and the subtonic asserts itself as an integral part of the chord formed by the combination of thirds starting from the dominant. All chords in which the subtonic predominates are called dominant chords, or dominant harmony, and are reckoned and named from the dominant as a starting-point, not from the tonic.

38. A chord is said to be in its original position if the note started from (tonic or dominant) be in the bass. And this starting-point is what is frequently termed the Root or Ground-note. (The word bass is used as signifying the lowest note of a chord, without reference to its pitch.)

By the word Ground-note or Root in this work, it is not intended to describe that sound from the natural harmonic relations of which the chord upon it is derived, but only that note which forms the basis of a collection of sounds as found in use, and as treated in various ways in modern music; that is to say, it represents that key-sound, tonic or dominant, upon which various combinations are constructed with a general tendency to resolve into the tonality of that key. The roots of chords, as laid down by the

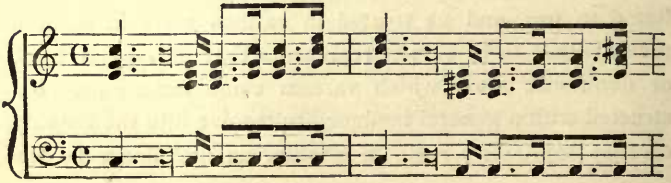
scientific calculator, may indeed sometimes coincide with that basis which art has constructed for itself, but may also be widely divergent from it. The attempts hitherto made to reduce all chords to a series of simple arithmetical relations to some given generator have been so unsuccessful that the only safe course in laying the foundation of a Theory of Harmony is to generalise from the results observed in the treatment of harmonic combinations in the works of the best masters.

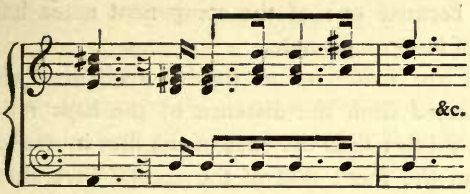
Such observations point out unmistakeably that the influence of the dominant and tonic as the pillars of key-tonality is paramount, the subdominant having a very slight influence in this respect, for reasons which will be hereafter fully explained.

In short, to state the fact in another form, all chords will be found as belonging to some key, and if any are found in such a rudimentary form as to make it possible that they are component parts of more than one key, the resolutions of such chords show beyond doubt what tonality was present in the composer's mind, and the key-note of that particular tonality or its fifth is what is to be understood in the following pages by the word Ground-note or Root.

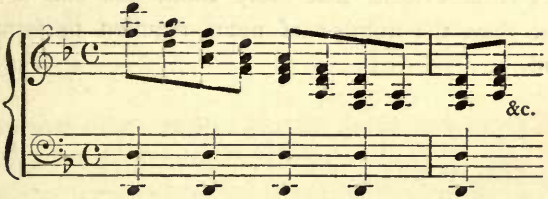
39. The alteration of the relative position of the upper notes does not affect the nature of a chord.

HANDEL. *Israel in Egypt.* Part II.





MENDELSSOHN. *Elijah.* "Help, Lord."

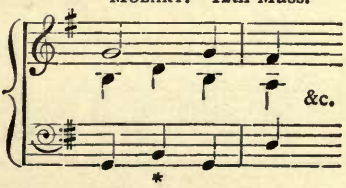


All the above chords are said to be in their original position, because the ground-note is in the bass.

40. It must now be considered on what system notes are combined so as to form chords. It is simply this: by adding thirds together, the thirds being major or minor according to their nature in the scale from which they are taken.

41. When any other note than the ground-note is in the bass, the chord is said to be inverted.

MOZART. 12th Mass.



The chord * in the above is called an inversion of the

previous chord, because one of the component notes has taken the place of the ground-note.

As all chords are made up of thirds, inversions are reckoned and named from the distance of the bass note from the root, in thirds: thus the bass of the first inversion is one third from the root; that of the second inversion, two thirds (= a fifth) from the root, and so on.

42. It is evident that every chord has one inversion fewer than the number of notes required to form that chord.

CHAPTER IV.

43. Having defined a chord as a combination of thirds taken from a scale, it is necessary to exhibit a scale in thirds instead of single degrees, and to give names to the chords formed.

SCALE DRAWN OUT IN THIRDS.

1. Starting from the Tonic.

2. Starting from the Dominant.

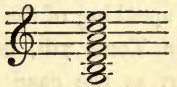
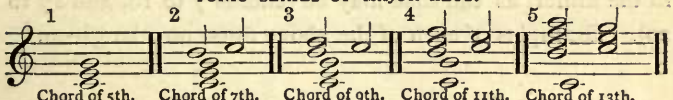
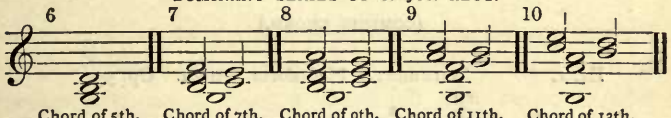


DIAGRAM OF CHORDS FORMED FROM THE SCALE.

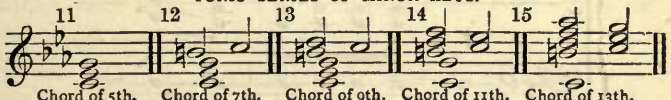
TONIC SERIES OF MAJOR KEYS.



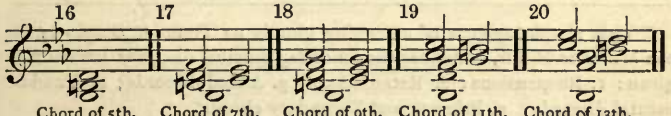
DOMINANT SERIES OF MAJOR KEYS.



TONIC SERIES OF MINOR KEYS.



DOMINANT SERIES OF MINOR KEYS.



The above diagram shows the chief diatonic chords

used in music.* It will be observed that there is no E in No. 4. The reason for this is, that "a discord is seldom heard with the note on to which it resolves." There are, however, frequent exceptions to this rule. The G and the E are both omitted from No. 5 for a like reason.

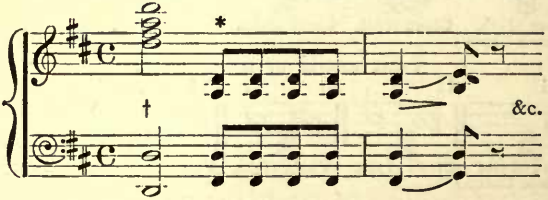
It is important to notice that the minor series of chords is identical with the major, except as to the signature which affects the third and sixth.

In speaking of the above chords we call them the chords of the Tonic 7th, 9th, 11th, 13th, in the major or in the minor, as the case may be (chords 2 to 5, and 12 to 15); and of the Dominant 7th, 9th, 11th, 13th, in the major or in the minor, as the case may be (chords 7 to 10, and 17 to 20). Examples of each of the above must now be given.

CHORD OF THE FIFTH.

(COMMON CHORD.)

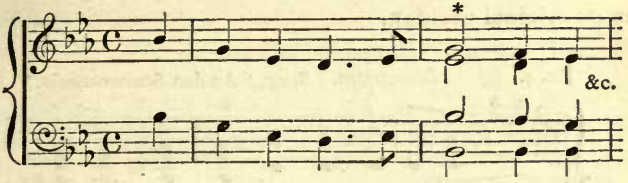
Ex. 1. SCHUBERT. Pianoforte Sonata. Op. 53.



* This simple system of arranging chords as Tonic or Dominant in the Minor or Major, embraces the following fanciful divisions commonly given: 1. Suspensions; 2. Retardations; 3. Added discords; 4. Fundamental discords; 5. Primary and Secondary chords.

The student is advised to transpose the chords of the diagram into various keys.

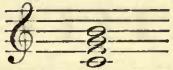
Ex. 2. MENDELSSOHN. Vocal Quartets. Op. 56.



44. In Ex. 1 the chord † is a common chord of D; and the chord * is the first inversion of that chord. In Ex. 2 at * the chord is the second inversion of the common chord of E♭.

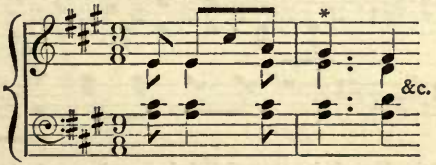
CHORD OF THE TONIC SEVENTH.

45. The chord formed by the first four notes of the scale taken in thirds (chord No. 2),*



which consists of a third added to the common chord, is the chord of the major seventh, which is used in two distinct ways: first, as a discord in which the seventh must descend; secondly, as a chord containing the subtonic, which must ascend. The following are examples of the first-mentioned treatment of the major seventh :—

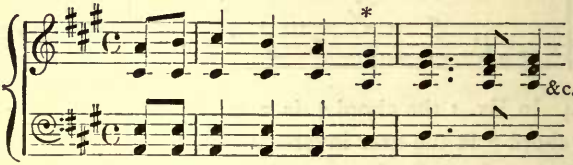
Ex. 3. MENDELSSOHN. Vocal Quartets. Op. 59.



* The student will do well to collect and arrange other examples.

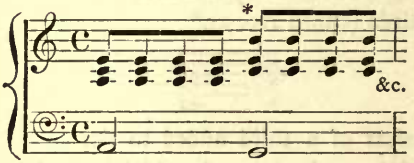
46. At * in Ex. 3 is the chord of the major seventh of A in its original position.

Ex. 4. SCHUMANN. *Song*, "An den Sonnenschein."



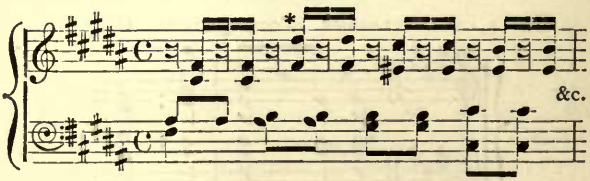
47. At * in Ex. 4 occurs the first inversion of the chord of the major seventh of A.

Ex. 5. SCHUMANN. *Song*, "Ich grolle nicht."



48. At * in Ex. 5 will be found the second inversion of the chord of the major seventh of C.

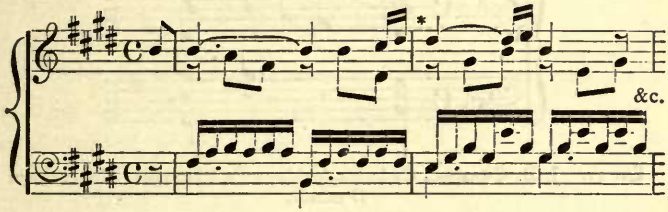
Ex. 6. SCHUMANN. *Song*, "Schöne Fremde."



49. At * in Ex. 6 is the third inversion of the chord of the major seventh of B.

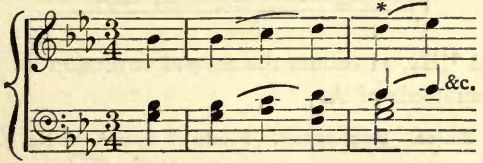
The following are examples of the major seventh treated as the subtonic:—

Ex. 7. MOZART. *Idomeneo.* "Placido è il mar."



50. At * Ex. 7 is the original position of the suspended subtonic of E.

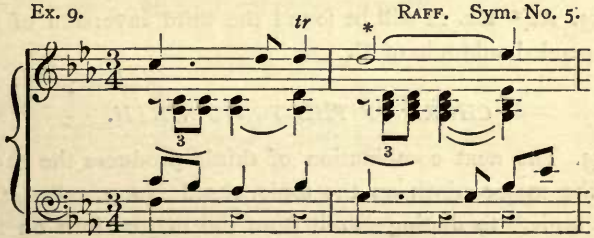
Ex. 8. SCHUBERT. Pianoforte Sonata in E♭. Op. 122.



51. At * Ex. 8 is the first inversion of the suspended subtonic of E♭. It will be observed that the E♭ is omitted in this chord on account of the rule before alluded to. (§ 43.)

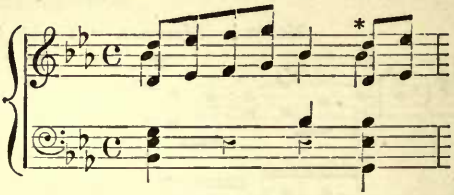
It is similarly treated in the following:—

Ex. 9. RAFF. Sym. No. 5.

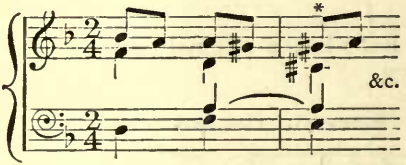


But in the following the tonic is retained:—

Ex. 10. BRAHMS. *Schicksalslied.*

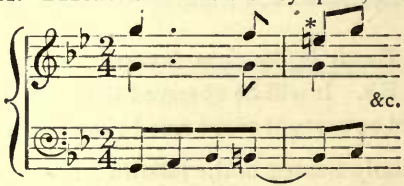


Ex. 11. J. B. CRAMER. Cadenza in Mozart's Pianoforte Concerto in D minor.



52. At * Ex. 11 occurs the second inversion of the suspended subtonic of A.

Ex. 12. BEETHOVEN. Finale of Symphony No. 4.

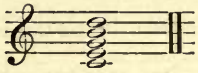


53. At * Ex. 12 will be found the third inversion of the suspended subtonic of C.

CHORD OF THE TONIC NINTH.

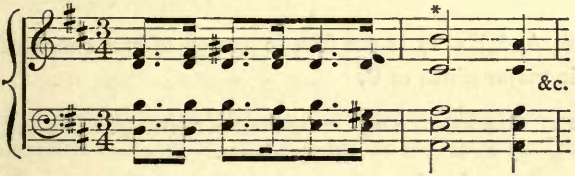
54. The next combination of thirds produces the chord of the major ninth on the tonic, chord No. 3, called "on the tonic," to distinguish it from the major ninth on the

dominant, the former including under it a major seventh, the latter a minor seventh.

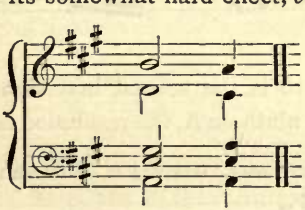


55. It is important to notice that, in the inversions of chords of the ninth, the ground-note is (with rare exceptions) omitted.

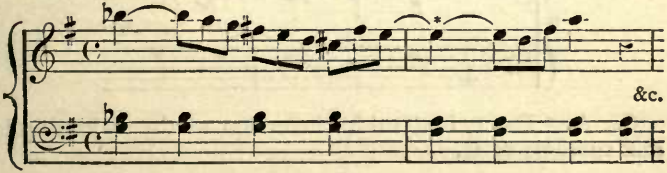
Ex. 13. SCHUBERT. Pianoforte Sonata in D. Op. 53.



56. At * Ex. 13 is the original position of the chord of the tonic major ninth, on A. The seventh is frequently omitted in this position as it requires the 11th instead of the 3rd to soften its somewhat hard effect, *e.g.*:—

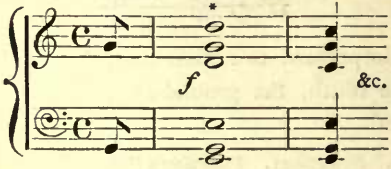


Ex. 14. GOUNOD. *Faust.* Introduction to Act IV.



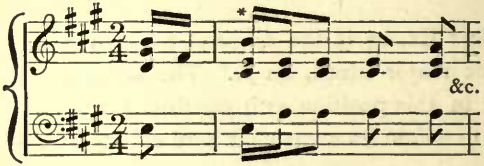
57. At * Ex. 14 is the first inversion of the chord of the tonic major ninth of D, without the subtonic.

Ex. 15. BEETHOVEN. Third Overture to *Leonora*.



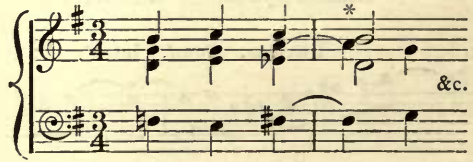
58. At * Ex. 15 is the first inversion of the chord of the tonic major ninth of C.

Ex. 16. SCHUMANN. *Song*. "Dem rothen Röslein gleicht mein Lieb." Op. 27. No. 2.



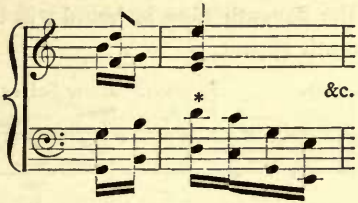
59. At * Ex. 16 is the second inversion of the chord of the tonic major ninth on A, the resolution being interrupted.

Ex. 17. BEETHOVEN. Mass in D. Prelude to "Benedictus."



60. At * Ex. 17 is the third inversion of the major ninth and subtonic of G.

Ex. 18. SCHUBERT. Pianoforte Sonata. Op. 42.

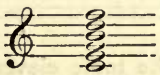


61. At * Ex. 18 is the fourth inversion of the chord of the tonic major ninth of C.

62. In all the above examples (except, of course, Ex. 17) the seventh has not been heard. The chord is not so pleasing with this interval as without it; but the student who desires examples of the chord with the addition of the seventh can easily find them in crude contrapuntal writers of the last century.

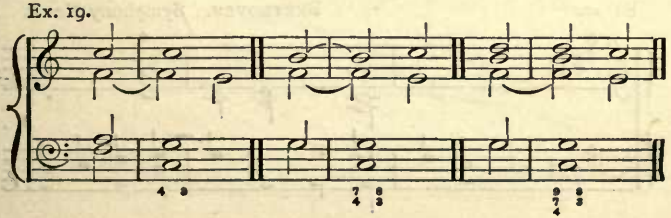
CHORD OF THE TONIC ELEVENTH.

63. The next combination of thirds, chord No. 4, is:—



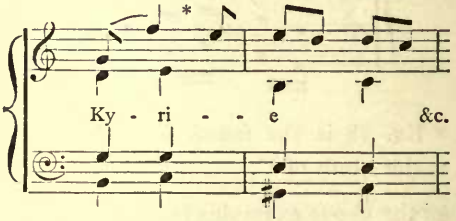
This chord of the eleventh is more commonly known as that of the *fourth*. It occurs in three forms, namely:—

Ex. 19.



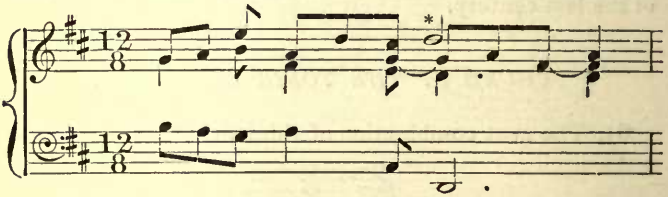
In the first, the fifth only is heard with the eleventh; in the second, the seventh also is heard; in the third, both seventh and ninth appear.

Ex. 20. ROSSINI. *Messe Solennelle.*



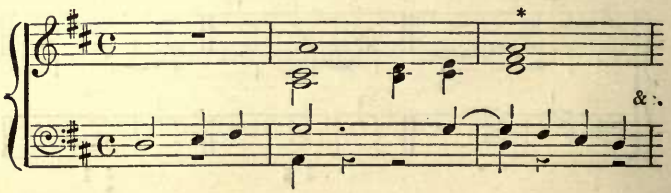
64. At * Ex. 20 is the original position of the chord of the tonic eleventh (suspended fourth) on C, the tonic third not being displaced, as might naturally be expected.

Ex. 21. BACH. 48 Preludes and Fugues. Book II. No. 5. Prelude.



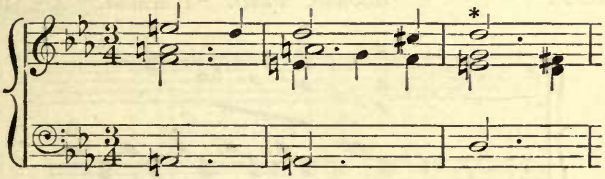
65. At * Ex. 21 is the tonic eleventh (suspended fourth) in its original position, on D, the third and fifth being omitted at the percussion of the discord.

Ex. 22. BEETHOVEN. Symphony No. 2.



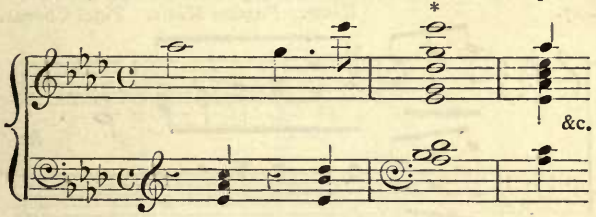
66. At * Ex. 22 is the tonic eleventh (suspended fourth) combined with the third and fifth, on D.

Ex. 23. SCHUMANN. Symphony No. 3.



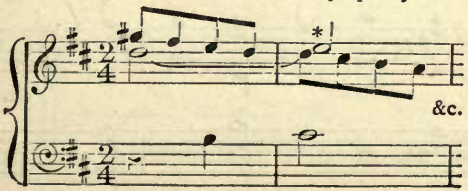
67. At * Ex. 23 is the tonic eleventh in combination with the ninth of D, a form not commonly found.

Ex. 24. BEETHOVEN. Pianoforte Sonata. No. 2. / Op. 2.



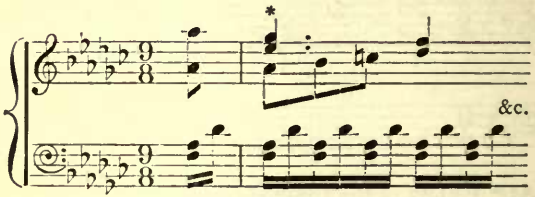
68. The chord * in Ex. 24 contains the fifth, seventh, ninth, and eleventh of A ♭. It is commonly known as the suspension $\frac{9}{7}$. It consists of a full chord of the dominant seventh struck with the tonic.

Ex. 25. MOZART. Symphony in D. No. 1.



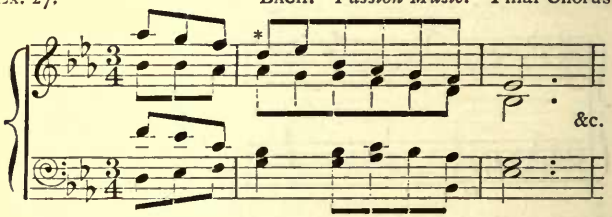
9. At * Ex. 25 is the first inversion of the chord of the tonic eleventh (suspended fourth) of A, without the seventh and ninth.

Ex. 26. GOUNOD. *Faust.* "Il m'aime." Act. III.



70. At * Ex. 26 is the same chord, on D ♭, as in Ex. 25, but with the addition of the ninth.

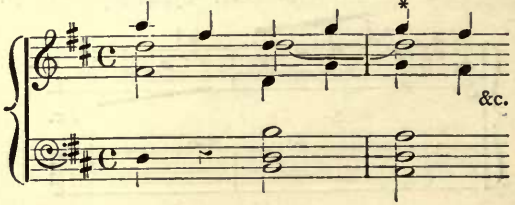
Ex. 27. BACH. *Passion Music.* Final Chorus.



71. At * Ex. 27 is the same chord on E ♭, as in Examples 25, 26, but containing the seventh.

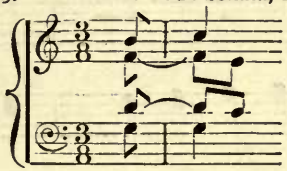
This chord is commonly called the first inversion of the suspension $\frac{7}{4}$.

Ex. 28. BEETHOVEN. *Mass in D.* "Kyrie."



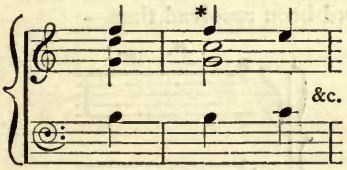
72. At * Ex. 28 is the second inversion of the chord of the tonic eleventh (suspended fourth), on D, in its simplest form (see Ex. 19), that is, without seventh or ninth of the ground-note.

Ex. 29. SCHUBERT. P. F. Sonata, No. 1.



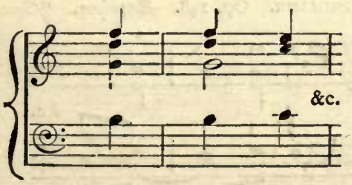
73. At * Ex. 29 is the same chord as in Ex. 28, on C, but with the addition of the ninth.

Ex. 30.



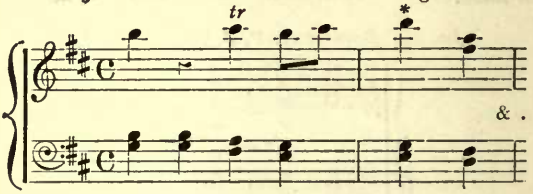
74. The third inversion of the tonic eleventh will, as above, Ex. 30, have the subtonic in the bass. This combination is so harsh, that the tonic is generally omitted, thus leaving nothing but dominant harmony, *e.g.* :—

Ex. 31.



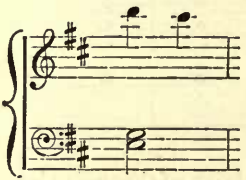
75. In Ex. 31 the removal of the note C takes away the only vestige of tonic harmony, and makes it an inversion of the seventh on the dominant.

Ex. 32. BEETHOVEN. *Mass in D.* "Agnus Dei."



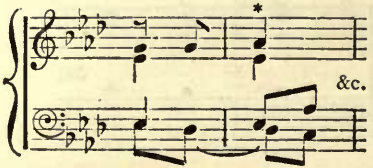
76. At * Ex. 32 is the fourth inversion of the tonic eleventh and ninth of D. It is commonly called the fourth inversion of the suspension $\frac{9}{4}$.

Had this chord been resolved thus—



it would no longer have been a tonic chord, but would have become the second inversion of the chord given in Ex. 53, having for its ground-note A instead of D.

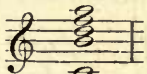
Ex. 33. SCHUMANN. Op. 148. *Requiem.* "Sanctus."



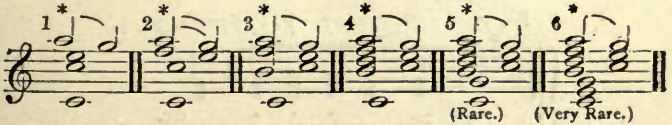
77. At * Ex. 33 is the fifth inversion of the tonic eleventh of A♭, commonly called the fifth inversion of the suspended fourth.

CHORD OF THE TONIC THIRTEENTH.

78. The next combination of thirds produces the chord of the major thirteenth on the tonic (chord No. 5).

This chord consists, in its fullest form, of the seven notes of the scale—C, B, D, E, F, G, A. But, as seven parts at least are required for its full exposition, it may well be imagined that it is not of common occurrence. Among other causes which tend to limit the use of the full chord is the fact before stated, that a discord is rarely heard with the note on to which it resolves. Therefore, the note A (in the chord as printed above) ejects the G; also, the note F ejects E, on to which it resolves; the chord then remains in this form,  which will be recognised as being in common use. If one of the notes of this last form has to be turned out, in order to reduce the chord to *four-part* harmony, the D is generally ejected.

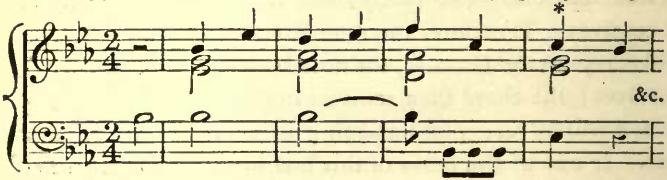
The chord is therefore capable of appearing in the following forms:



The student will here observe, if he has not already done so, that the progression of notes to a point of rest,

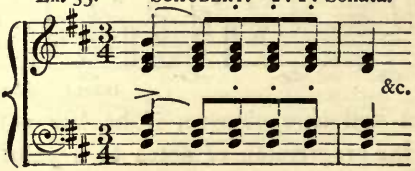
or their *resolution* as it is called, is the surest sign that they are *discords* in the complete series of thirds. For example, in No. 1, of the above, the first chord might well be mistaken (by those who are ignorant of the fact to which its progression points), for the inversion of the common chord of A minor, and that in No. 2 as the second inversion of the common chord of F. But such is not the case; and theorists who profess to be horrified at the explanation of these chords here offered, are careful not to confound them with the common chords of A and F, and therefore specially call them the "suspension 6 5" (chord No. 1), and the "suspension $\frac{6}{4}\ \frac{5}{3}$" (chord No. 2). This unwilling institution of these chords into discords of suspension is sufficiently suggestive of their real scale-relationship.

Ex. 34. BEETHOVEN. Symphony, No. 5.

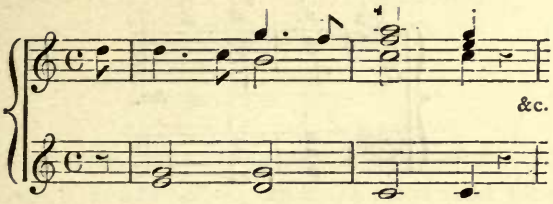


79. At * Ex. 34 is the chord of the tonic major thirteenth (tonic sixth) of E♭, in its simplest form. The opening of a movement by Schubert specially exhibits the beauty of this chord, *e.g.*:—

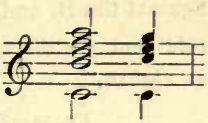
Ex. 35. SCHUBERT. P. F. Sonata.



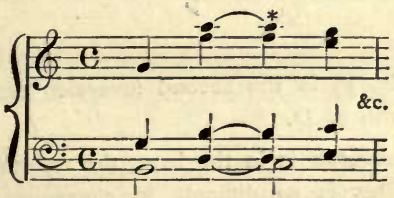
Ex. 36. MOZART. Symphony, No. 6.



80. At * Ex. 36 is the tonic thirteenth and eleventh (sixth and fourth) of C. In this form it has, of course, the appearance of an ordinary second inversion of the common chord of F. But if we attempt to fill up the chord, we shall find that B and D, the seventh and ninth of C, when heard instead of the C, as annexed, do not disturb our notion of the *key* the passage is in; while on the other hand, the substitution of F (the derivative of the common chord of which * Ex. 36 is apparently the second inversion) for C, in the bass, sounds entirely out of place.

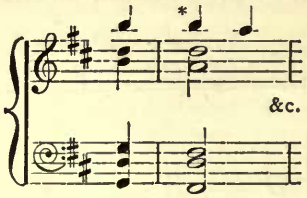


Ex. 37. MOZART. Symphony in C.



81. At * Ex. 37 is the full chord of the tonic thirteenth, eleventh, ninth, and subtonic, in its original position.

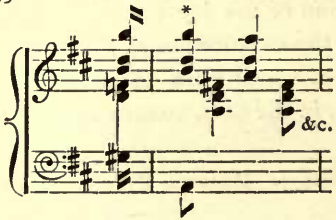
Ex. 38. BEETHOVEN. *Mass in D.* "Kyrie."



82. At * Ex. 38 is the first inversion of the tonic major thirteenth (suspended sixth) of D.

In the above example the A is exceptional as appearing against the B, and $\frac{B}{B}$ being followed by $\frac{B}{A}$ is contrary to the rule that "a discord of a ninth should not be prepared by an eighth."

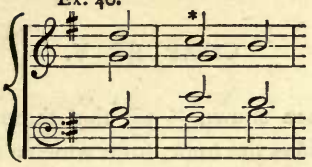
Ex. 39. SCHUMANN. *Paradise and the Peri.* No. 10.



83. At * Ex. 39 is the second inversion of the tonic major thirteenth of D.

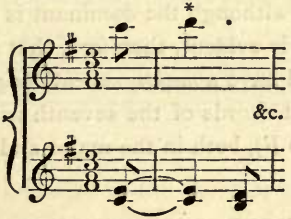
84. If the seventh is in the bass, the treatment of the remaining notes is so difficult, in consequence of the harshness of the combination, that the third inversion is practically useless.

Ex. 40.



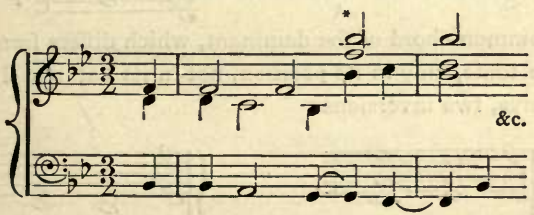
85. At * Ex. 40 is the fourth inversion of the chord of the major thirteenth of G. In it the ninth must ascend in order to avoid consecutive fifths. Had it not been immediately followed by a chord of G, it would have been a dominant chord, as shown in Ex. 56.

Ex. 41. BEETHOVEN. *Mass in D.* "Benedictus."



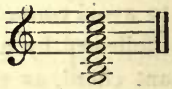
86. At * Ex. 41 is the fifth inversion of the tonic major thirteenth and eleventh of G. It is commonly known as the inversion of the suspension $\frac{6}{4}$ against 5.

Ex. 42. BEETHOVEN. *Mass in D.* "Et vitam venturi."



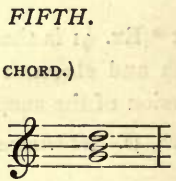
87. At * Ex. 42 is the sixth inversion of the chord of the tonic thirteenth of B ♭. It is commonly known as the tonic sixth suspended in the bass.

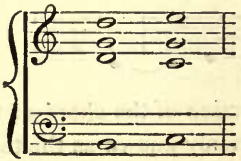
CHAPTER V.

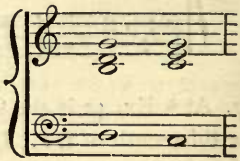
88. It has been shown (§ 38) that there is another note in the scale besides the tonic, from which a series of chords, having however a tendency to revert to the tonic, is formed, that note being the dominant. The series of thirds forming dominant harmony will be  It is important to remember that dominant chords are in the *key of their tonic*, although the dominant is said to be their ground-note. It is evident, therefore, that all tonic chords of the seventh will have a *major* seventh (*e.g.*, from C to B), while all dominant chords of the seventh will have a *minor* seventh (*e.g.*, G to F), both in the major and minor series.

CHORD OF THE FIFTH.

(DOMINANT COMMON CHORD.)

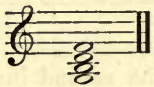
89. The first three of these notes  produce the common chord of the dominant, which differs from that of the tonic, only in its position, not in its nature. It has, of course, two inversions.



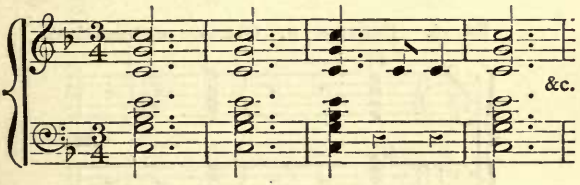


CHORD OF THE DOMINANT SEVENTH.

90. The next combination of thirds produces the chord of the minor or dominant seventh (chord No. 7).

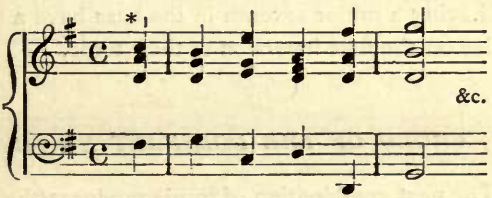


Ex. 43.† CHOPIN. *Waltz.* Op. 34. No. 3.



91. Ex. 43 consists of the chord of the minor seventh of C repeated several times.

Ex. 44. CHERUBINI. "Amen." *Credo.* Mass. No. 4.



92. At * Ex. 44 is the first inversion of the chord of the minor seventh of D.

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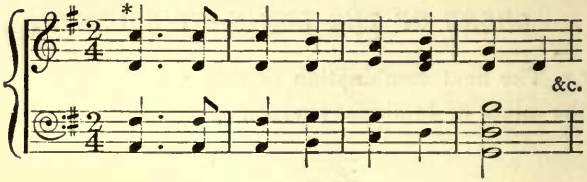
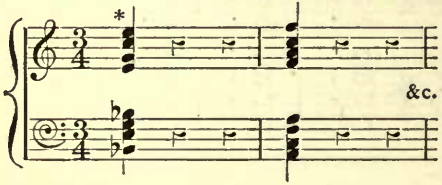
† The Examples 43—46 have been selected for the purpose of showing pieces or movements which commence on a chord of the seventh without preparation.

Ex. 45. SCHUMANN. *Song.* "Lied der Braut." Op. 25. No. 12.



93. At * Ex. 45 is the second inversion of the chord of the minor seventh of D.

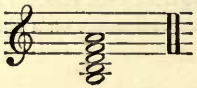
Ex. 46. BEETHOVEN. Overture to *Prometheus.*



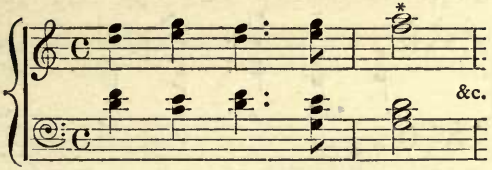
94. At * Ex. 46 is the third inversion of the chord of the minor seventh of C. It should be remarked that many chords having a minor seventh in the bass have a tendency to resolve on the first inversion of their tonic.

CHORD OF THE DOMINANT NINTH.

95. The next combination of thirds produces the chord of the major ninth on the dominant (chord No. 8). It includes under it a minor seventh, whereas the chord of the major ninth on the tonic includes a major seventh or subtonic.

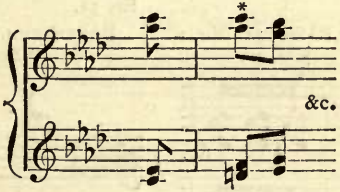


Ex. 47. SCHUMANN. Symphony in C.



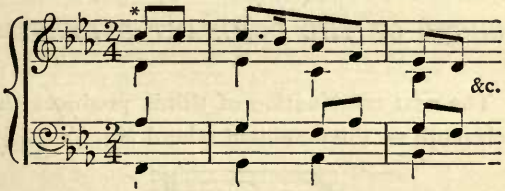
96. At * Ex. 47 is the chord of the major ninth of G in its original position.

Ex. 48. BEETHOVEN. Pianoforte Sonata. Op. 26.



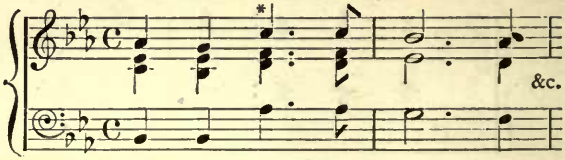
97. At * Ex. 48 is the first inversion of the chord of the major ninth of B♭. This chord is sometimes called the chord of the seventh on the leading-note. It may be well to remind the reader that chords of the ninth reject the ground-note in their inversions.

Ex. 49. MENDELSSOHN. Op. 82.



98. At * Ex. 49 is the second inversion of the chord of the major ninth of B♭.

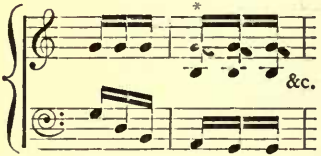
Ex. 50. MENDELSSOHN. Vocal Quartets. No. 11. Op. 59.



99. At * Ex. 50 is the third inversion of the chord of the major ninth of B ♭.

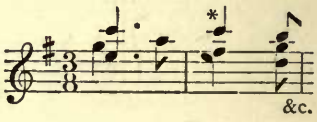
Ex. 51.

SCHUBERT. P.F. Sonata. No. 1. Op. 42.



Ex. 52.

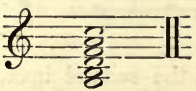
BEETHOVEN. *Mass in D.* "Benedictus."



100. At * Ex. 51 is the fourth inversion of the chord of the major ninth of G, and at * Ex. 52 is the same chord derived from D.

CHORD OF THE DOMINANT ELEVENTH.

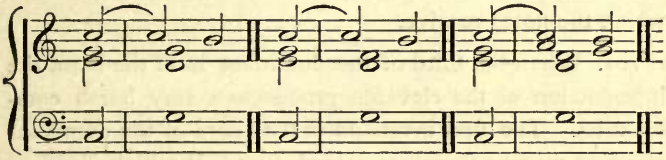
101. The next combination of thirds produces the chord of the eleventh on the dominant (chord No. 9).



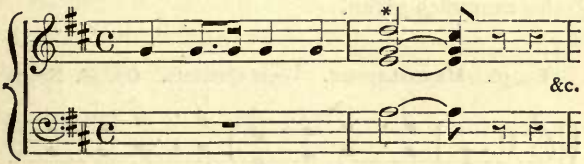
This chord, like its relation formed on the tonic (§ 63),

appears in three forms: the first, accompanied only with the fifth; second, with the seventh also; third, with both seventh and ninth.

Ex. 53.

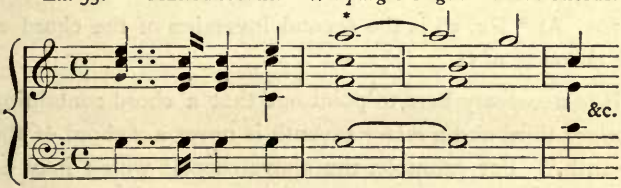


Ex. 54. MOZART. Symphony in D. No. 5.



102. At * Ex. 54 is the chord of the eleventh on A in its original position, but without the ninth.

Ex. 55. MENDELSSOHN. *Walpurgis Night.* Final Chorus.

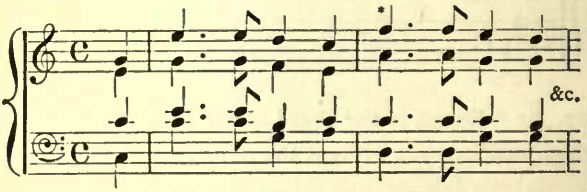


103. At * Ex. 55 is the chord of the eleventh of G, including the ninth, in its original position. It commonly happens that in the case of dominant discords, the higher numerical discord resolves before the lower. Thus in Ex. 54, D, the eleventh, is resolved before G, the seventh;

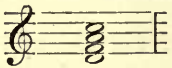
similarly in Ex. 55, C, the eleventh, resolves first, then A, the ninth, and, lastly, F, the seventh. In musical analysis this knowledge is of importance, as a doubtful derivation can often be satisfactorily explained by tracing the order in which the notes resolve.

104. When the third of the dominant is in the bass, the introduction of the eleventh produces a very harsh combination. The first inversion of the chord of the dominant eleventh may be therefore passed over. It will be noticed that the third of the dominant is displaced by the eleventh in all the examples given.

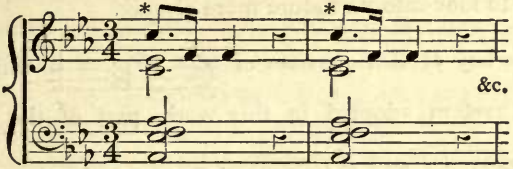
Ex. 56. MENDELSSOHN. Vocal Quartets. Op. 48. No. 7.



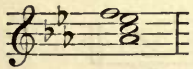
105. At * Ex. 56 is the second inversion of the chord of the eleventh of G.

It is necessary here to point out that a chord containing a *minor* third and a *minor* seventh is never a "chord of the seventh." For example, the above chord,* which may be written  *cannot* be derived from D. If it were a seventh on D as the dominant of G, the F would be *sharp;* if it were on D as a tonic, both F and C would be sharp; if it were on D as the tonic of D minor, the C would be sharp. Therefore D cannot be the ground-note.

Ex. 57. BEETHOVEN. Pianoforte Sonata. No. 3. Op. 29.

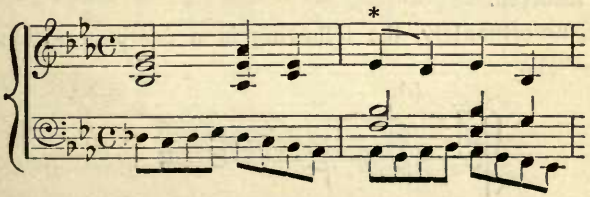


106. At * Ex. 57 is the third inversion of the chord of the eleventh of B ♭.

This chord is commonly called the chord of the added sixth, because it has the appearance of a subdominant chord with the addition of a sixth from the bass note. Thus, E ♭ being the key, A ♭ is the subdominant, and its common chord is E ♭ C, which, if F a sixth of A ♭ be added, becomes A ♭  that is, the chord * in Ex. 57.

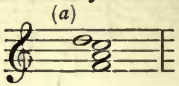
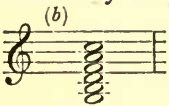
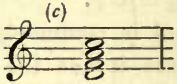
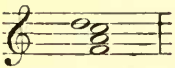
The name "added sixth" is only applicable to this chord when the ninth is heard (*e.g.* the note C in Ex. 57). When the dominant itself takes the place of the ninth, as at * in the following example, the chord can *only* be called the third inversion of the eleventh.

Ex. 58. BRAHMS. *Schicksalslied.*



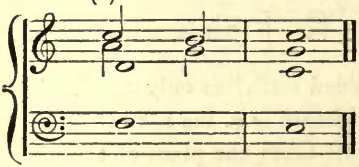
As much disagreement exists among musicians as to the

proper classification of the chord of the added sixth, it will be well to look into its nature more closely.

In the key of C it consists of (a)  which is, on the system adopted in this work, part of the chord (b)  The C has a tendency (as before remarked) to drive out the B; and for similar reasons, the A to turn out the G This then remains (c)  which is, of course, the second inversion of the chord *b;* while  is the third inversion.

If the following were the resolution of the chord :—

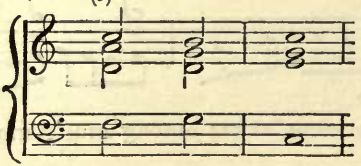
(d)



there could be little doubt as to the fact that the ground-note is G, because the higher numerical discords, the eleventh and ninth (C and A), resolve first, and lastly the seventh (F) is resolved.

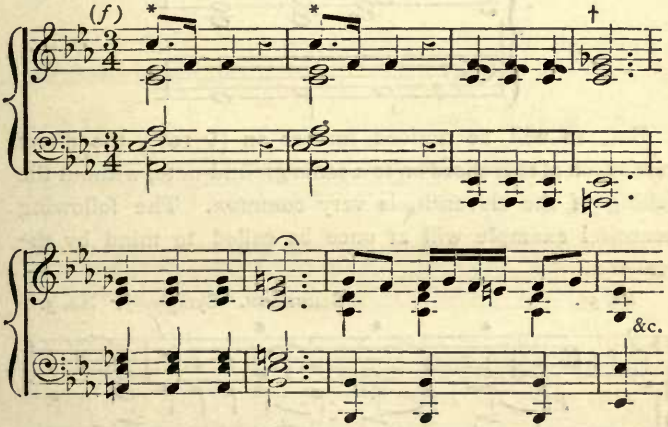
But, unfortunately, the following is a common resolution :—

(e)



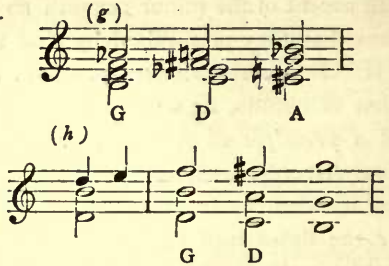
in which the minor seventh F of the ground-note G *ascends*. This unwonted ascent of the minor seventh so scandalizes some musicians that they promptly deny that the chord is derived from G. But as the student proceeds to trace out the progression of chords, he will find that the following may be called a *principle* of progression. When a chord contains several discords, reckoning from the ground-note, the ear is often satisfied by the resolution of part of them. Thus in Ex. *e* the downward progression of the eleventh and ninth completes the resolution of *two* of the *three* discordant notes, the ear willingly therefore bears with the irregular movement of the remaining one, the seventh.

In the particular case quoted above from Beethoven (Ex. 57) many analysts are unwilling to accept B♭ as the ground-note because of the resolution to a chord († in Ex. *f*) whose ground-note is unquestionably F.



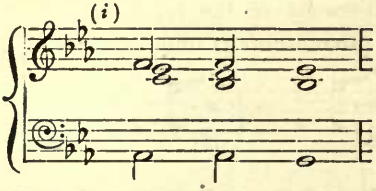
But this objection vanishes on a little consideration, for it generally happens that when discords are resolved chro-

matically upwards, the ground-notes move upwards a fifth, *e.g.*:—



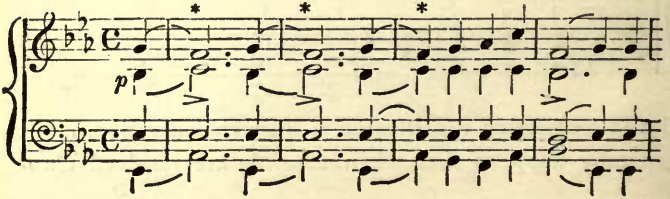
As, therefore, in Ex. *f* the chord progresses upwards, the ground-note F at †, so far from being unexpected in the following chord, is most natural.

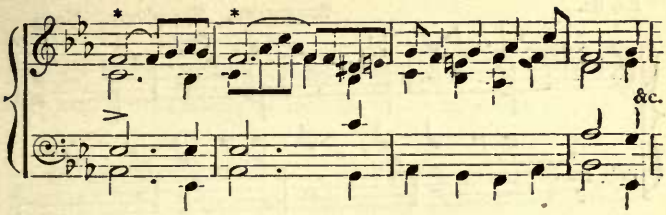
The normal resolution of this chord would of course be as follows:—



But, as will be noticed further on (§ 108), the direct resolution of this chord on to a tonic ground-note, without the falling of the eleventh, is very common. The following beautiful example will at once be called to mind by the reader:—

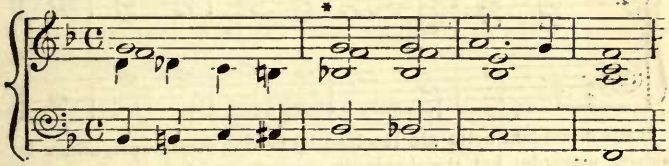
Ex. 59. SCHUMANN. Symphony. No. 3.





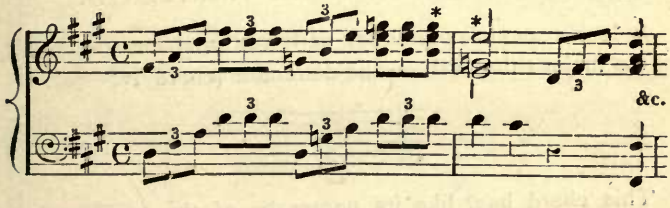
It is unnecessary to say more on this chord at present. In § 178 the reader will find examples of the same chord as it occurs in the minor series.

Ex. 60. VERDI. *Requiem.*



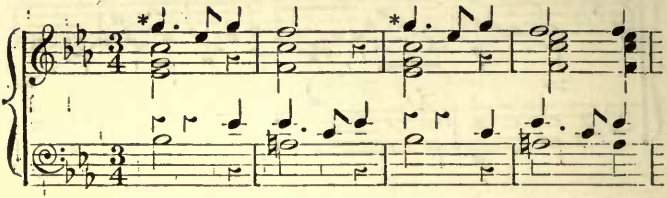
107. At * Ex. 60 is the fourth inversion of the chord of the eleventh of C.

Ex. 61. MENDELSSOHN. *St. Paul.* No. 2.

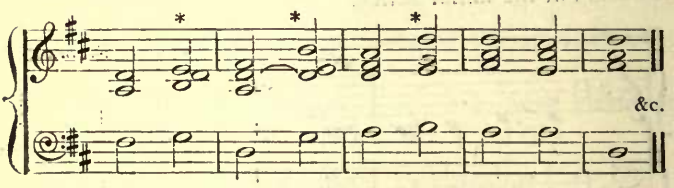


108. At * Ex. 61 is the fifth inversion of the chord of the eleventh of A. It is commonly called the chord of $\frac{7}{4}$, the fourth being in the bass. The ninth is, of course, often used with it, as in the following example (62) of the same chord from the ground-note F :—

Ex. 62. SCHUMANN. Symphony. No. 3



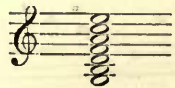
From the fact that the interval of the eleventh of the dominant is practically the tonic itself, this note is very commonly sustained into a common chord or its inversion, *e.g.*:—



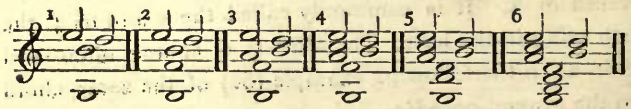
Some discordant notes are resolved by moving downwards, others by moving upwards; but the dominant eleventh, as shown in the above example, is frequently stationary, because it thus forms an important part of the chord of resolution. (Compare § 186.)

CHORD OF THE DOMINANT THIRTEENTH.

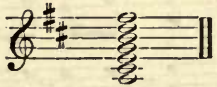
109. The next combination of thirds produces the chord of the major thirteenth on the dominant (chord No. 10).



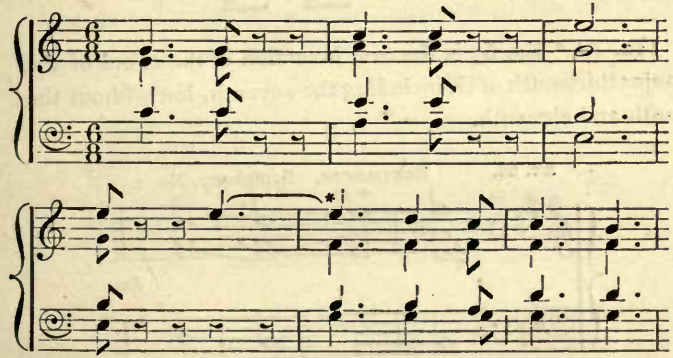
This chord has, like its namesake of the tonic series (§ 78), the following forms:—



No. 1 is the simplest form consisting only of the ground-note, its third, and thirteenth, which is resolved on to the fifth, and is commonly known as the suspension 6 5 on the dominant. It will be seen that No. 2 contains the seventh; No. 3 the seventh and ninth; No. 4 the seventh, ninth and eleventh; No. 5 has the fifth heard against these last, a form rarely met with; No. 6 is the full form containing every note of the scale. Of these six forms No. 2 is probably the commonest, as it is certainly the most elegant. No. 6 is the rarest, a well-known example however occurring in Pearsall's madrigal, "Great God of Love," where it is introduced with a most magnificent effect, on the ground-note A, thus :—

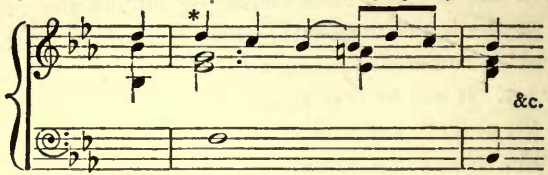


Ex. 63. ROSSINI. *Messe Solennelle.* "Sanctus."



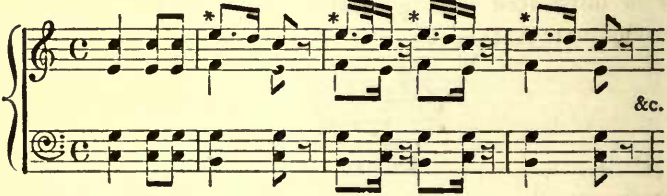
110. At * Ex. 63 is the chord of the major thirteenth of G, without the ninth and eleventh. It is known as the chord $\frac{7}{6}$.

Ex. 64. SCHUMANN. Symphony in C. No. 4.



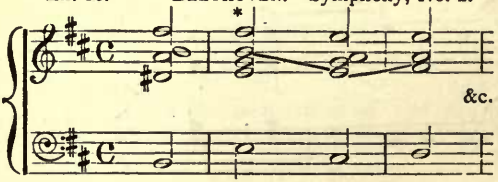
111. At * Ex. 64 is the chord of the major thirteenth of F, with the ninth and seventh, but without the eleventh.

Ex. 65. BEETHOVEN. Sonata for Pianoforte and Violin. Op. 12. No. 2.



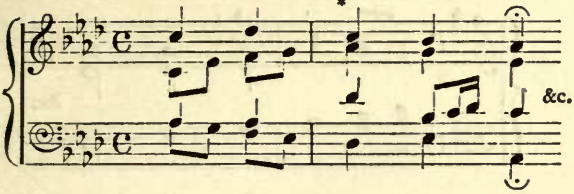
112. At * Ex. 65 is the first inversion of the chord of the major thirteenth of G, including the seventh, but without the ninth and eleventh.

Ex. 66. BEETHOVEN. Symphony, No. 2.



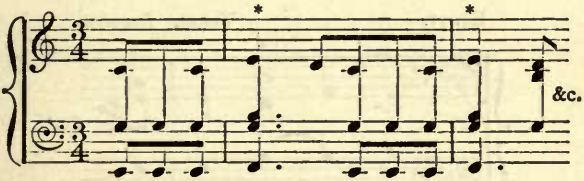
113. At * Ex. 66 is the second inversion of the chord of the major thirteenth of A, with the ninth and seventh.

Ex. 67. BACH. *Passion Music.* No. 16.



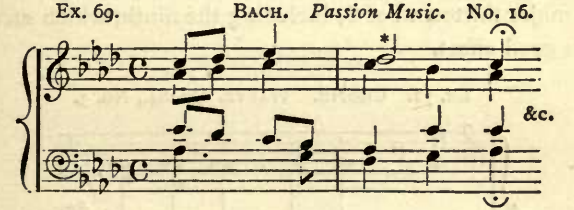
114. At * Ex. 67 is the third inversion of the chord of the major thirteenth of E♭, including the ninth and eleventh.

Ex. 68. MENDELSSOHN. Overture for a Military Band.



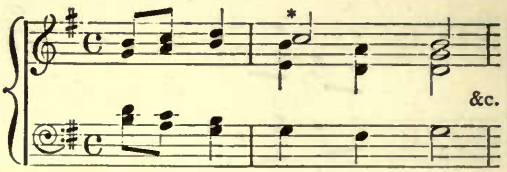
115. At * Ex. 68 is the third inversion of the chord of the major thirteenth of G.

Ex. 69. BACH. *Passion Music.* No. 16.



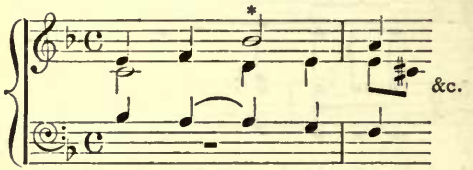
116. At * Ex. 69 is the fourth inversion of the chord of the major thirteenth of E♭, including the seventh, ninth and eleventh. It will be noticed that the proper resolution of the thirteenth and minor seventh allows the upward movement of the ninth and eleventh.

Ex. 70.



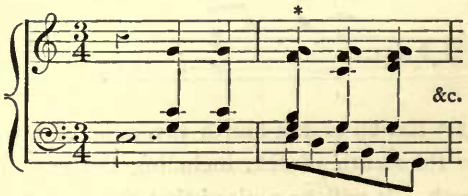
117. At * Ex. 70 is the fifth inversion of the chord of the major thirteenth of D, including the seventh, ninth, and eleventh. The consecutive fifths are not unpleasant.

Ex. 71. VERDI. *Requiem.*



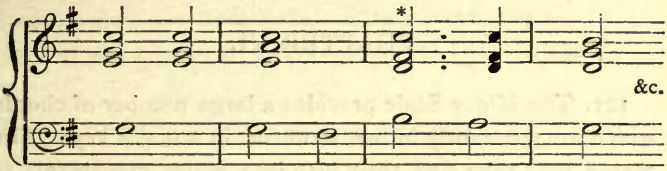
118. At * Ex. 71 is the sixth inversion of the chord of the major thirteenth of C, including the ninth, which *ascends* with good effect.

Ex. 72. CHOPIN. WALTZ. Op. 64., No. 3.



119. At * Ex. 72 is the sixth inversion of the chord of the major thirteenth of G, without the ninth and eleventh.

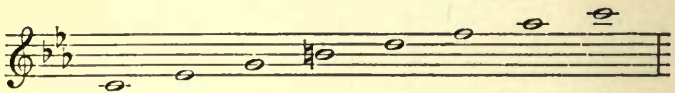
Ex. 73. SCHUMANN. *Paradise and the Peri.* No. 9.



120. At * Ex. 73 is the sixth inversion of the chord of the major thirteenth of D. This chord and that at * Ex. 72 would be generally called the chord $\frac{7}{6}$, having the sixth in the bass.

CHAPTER VI.

121. The Minor Scale provides a large number of chords which are constantly in use in music in a major key. The reason why they find their way into major movements is this: the dominant common chord of the minor is identical with the dominant common chord of the major; hence, dominant discords of the minor scale can be resolved on to a tonic having either a major or minor third. Adopting the modern minor scale, which differs from the tonic major only as to its minor third and minor sixth, the series of thirds will be this:—



122. It will be found, as in the major scale (see diagram, § 43), that the tonic and dominant each possesses its own series of thirds, and also, that some of the notes concordant with the dominant are treated as discords when combined with tonic harmony, and some of the notes concordant with the tonic are treated as discords when combined with dominant harmony.

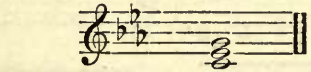
123. There is sometimes a difficulty in determining, when analysing some of the chords formed from the minor scale, whether tonic or dominant predominates in their nature. It is, of course, not a matter of opinion, but is to be decided by considering the treatment which such doubtful combinations receive at the hands of the great masters. If they are treated as tonic harmony, their name will be

found by reckoning in thirds from the tonic; if as dominant harmony, from the dominant. This can always be determined by the chords on either side of the doubtful chord.

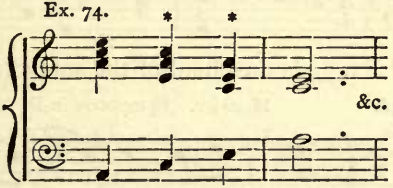
CHORD OF THE FIFTH.

(COMMON CHORD.)

124. The first three notes of the minor series produce the minor common chord (chord No. 11).



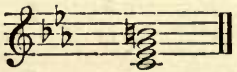
Ex. 74.



At * * Ex. 74 are the first and second inversions of the minor common chord of A.

CHORD OF THE TONIC SEVENTH.

125. The first four notes of the minor series produce the chord of the subtonic and minor third (chord No. 12.)

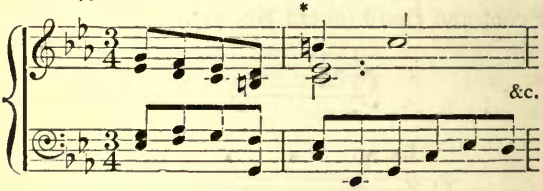


This is one of those chords in which the tonic and dominant element are almost evenly balanced. When the

treatment is evidently dominant, and the tonic is omitted, it will be found under the series of dominant chords.

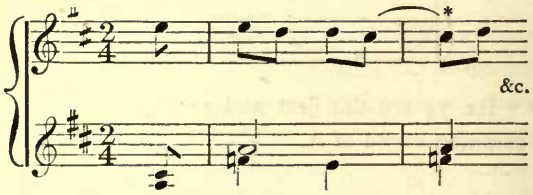
In the following examples it is a tonic chord, and is in most cases prepared, thus coming under the common name, "the chord of the suspended subtonic," but the first example given will show that it can be used with beautiful effect without preparation in the same part in which it occurs.

Ex. 75. BACH. *Passion Music.* Final Chorus.



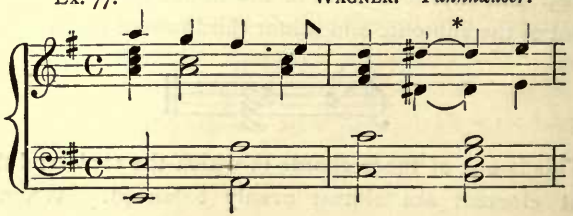
126. At * Ex. 75 is the chord of the subtonic of C minor.

Ex. 76. MOZART. Symphony in D. No. 1.



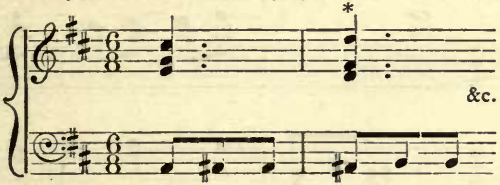
127. At * Ex. 76 is the first inversion of the chord of the subtonic and minor third of D.

Ex. 77. WAGNER. *Tannhäuser.*



128. At * Ex. 77 is the second inversion of the chord of the subtonic and minor third of E.

Ex. 78. MOZART. Symphony in D. No. 1.

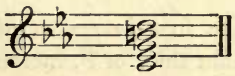


129. At * Ex. 78 is the third inversion of the subtonic and minor third of B.

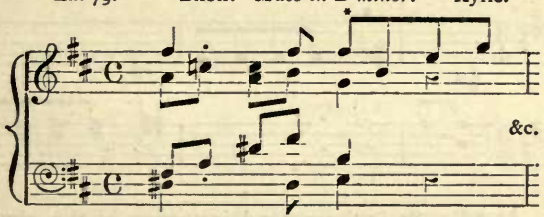
The subtonic of the minor key cannot descend, unless treated as a dominant note, because of the flattening of the sixth degree of the minor scale.

CHORD OF THE TONIC NINTH.

130. The next combination of thirds produces the chord of the major ninth and minor third (chord No. 13).



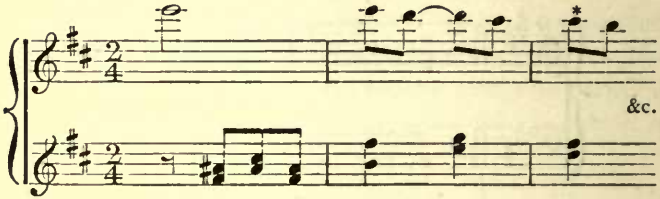
Ex. 79. BACH. *Mass in B minor.* "Kyrie."



131. At * Ex. 79 is the chord of the major ninth and

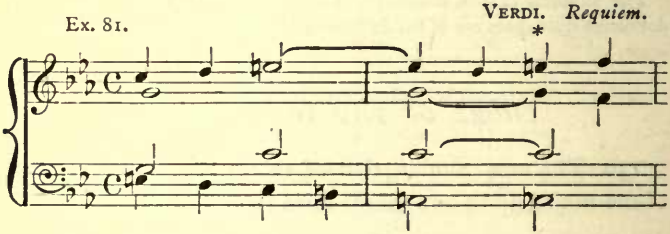
minor third of E, in its original position, without the seventh D♯.

Ex. 80. MOZART. Symphony in D. No. 1.



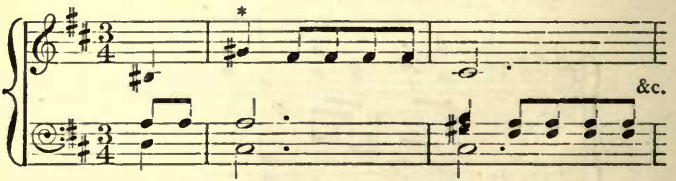
132. At * Ex. 80 is the first inversion of the chord of the major ninth and minor third of B, without the seventh.

Ex. 81. VERDI. *Requiem.*



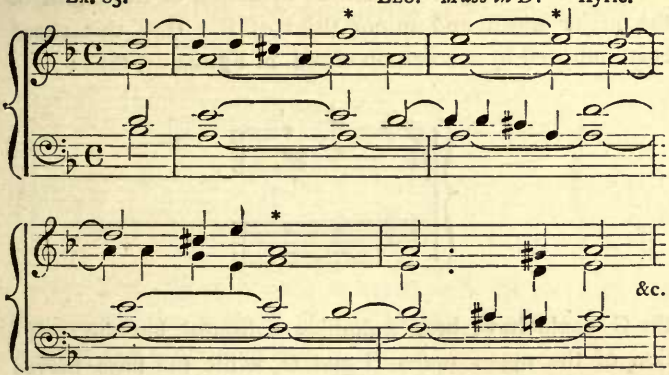
At * Ex. 81 is the first inversion of the chord of the major ninth and minor third of F, including the subtonic.

Ex. 82. SCHUBERT. Pianoforte Sonata in A. Op. 120.



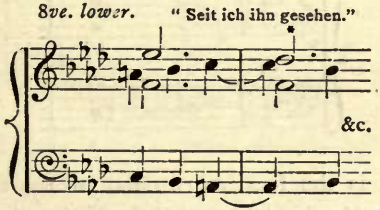
133. At * Ex. 82 is the second inversion of the chord of the major ninth and minor third of F♯.

Ex. 83. LEO. *Mass in D.* "Kyrie."



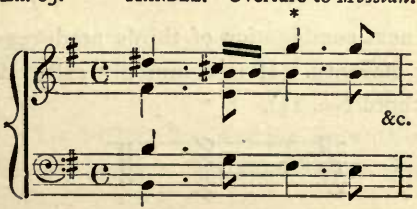
134. At * * * Ex. 83 are second inversions of the chord of the major ninth and minor third of D.

Ex. 84. SCHUMANN. SONG.

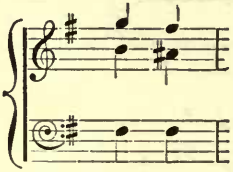


135. At * Ex. 84 will be found the third inversion of the chord of the major ninth and minor third of B♭.

Ex. 85. HANDEL. Overture to *Messiah.*

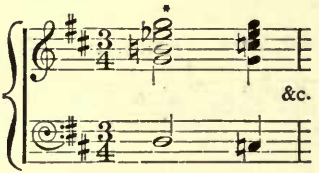


136. At * Ex. 85 is the fourth inversion of the chord of the major ninth and minor third of E. Had this chord been followed by a common chord of F♯ major, thus:



the G would have been a dominant discord, but the retention of the upper notes B and G, while the bass moves downwards, points unmistakeably to a tonic derivation.

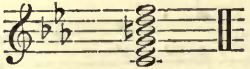
Ex. 86. SCHUBERT. Pianoforte Sonata. Op. 53.



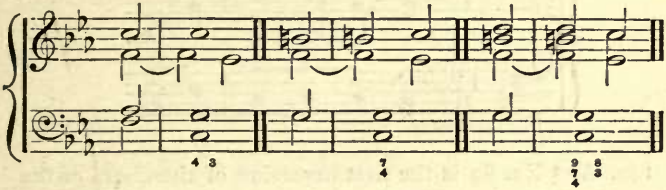
At * Ex. 86 is the fourth inversion of the chord of the major ninth, and minor third of C, including the subtonic.

CHORD OF THE TONIC ELEVENTH.

137. The next combination of thirds produces the chord of the tonic eleventh. It is commonly called the $\frac{5}{4}$ in the minor key (chord No. 14).

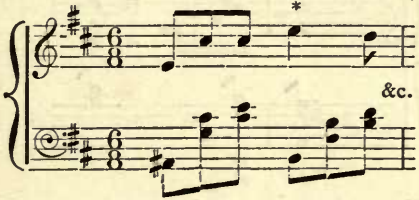


This chord occurs in the same forms as its namesake of the major series; thus:



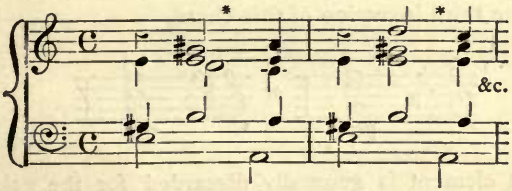
In the first, the fifth only is heard with the eleventh; in the second, the seventh also is heard; in the third, both seventh and ninth appear.

Ex. 87. SCHUBERT. Pianoforte Sonata in A. Op. 120.



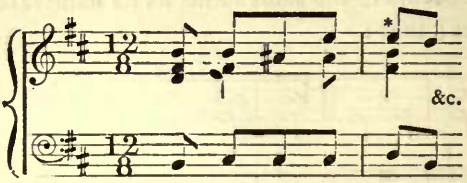
138. At * Ex. 87 is the original position of the chord of of the eleventh of B minor.

Ex. 88. MOZART. Symphony in C. No. 4.



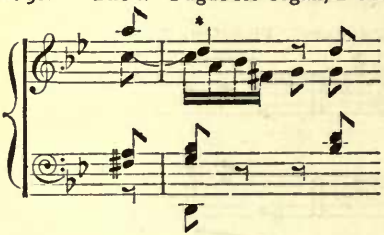
139. At * * Ex. 88 are chords of the eleventh of A minor, including the major ninth and subtonic, in their original position.

Ex. 89. BACH. *Passion Music.* No. 47.



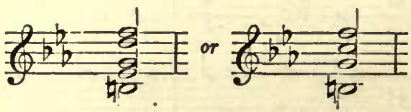
140. At * Ex. 89 is the first inversion of the chord of the eleventh of B minor (first inversion of suspended fourth in the minor).

Ex. 90. BACH. Fugue for Organ, D minor.



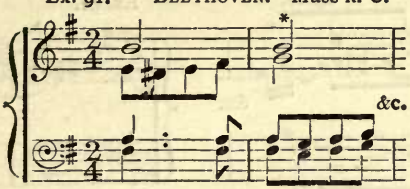
141. At * Ex. 90 is the second inversion of the chord of the eleventh of G minor.

When the seventh is used in the bass, as would be the case in the third inversion of this chord,



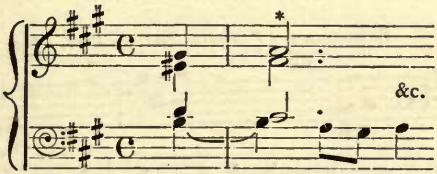
the tonic element is generally discarded for the sake of smoothness, leaving the chord the first inversion of the minor seventh on the dominant.

Ex. 91. BEETHOVEN. Mass in C.



142. At * Ex. 91 is the fourth inversion of the eleventh of E minor.

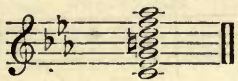
Ex. 92. BACH. *Mass in B minor.* "Confiteor."



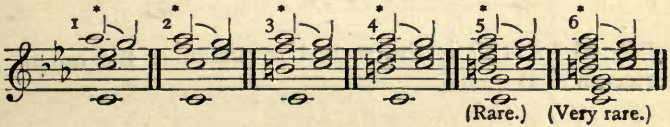
143. At * Ex. 92 is the fifth inversion of the chord of the eleventh of F♯ minor.

CHORD OF THE TONIC THIRTEENTH.

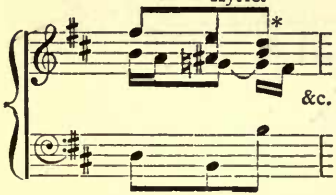
144. The next combination of thirds produces the chord of the minor thirteenth on the tonic (chord No. 15)



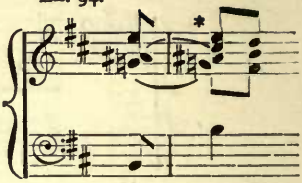
145. This chord is capable of appearing in the following forms (compare § 78) :—



Ex. 93. BACH. *Mass in B minor.*
"Kyrie."

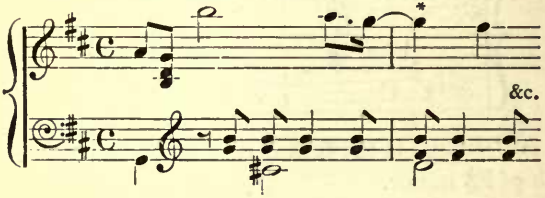


Ex. 94.



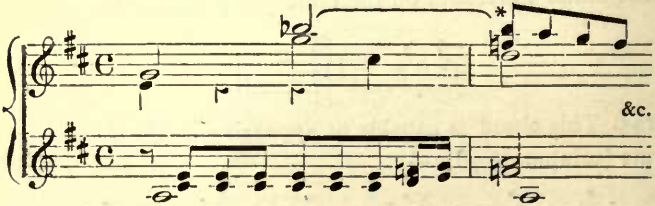
146. At * Ex. 93 is the simple form of the minor thirteenth of B minor; and at * Ex. 94 is the same chord, including the seventh, ninth, and eleventh.

Ex. 95. SCHUMANN. *Paradise and the Peri.* No. 10.



147. At * Ex. 95 is the first inversion of the minor thirteenth of B minor.

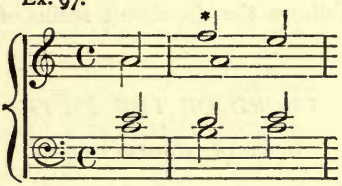
Ex. 96. MOZART. Symphony, No. 1.



148. At * Ex. 96 is the second inversion of the minor thirteenth of D minor.

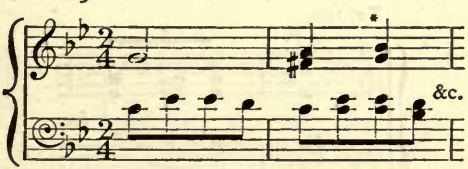
149. The introduction of the subtonic in the bass of this chord is harsh; a purely dominant chord, therefore, usually takes its place, and the third inversion may be passed over.

Ex. 97.



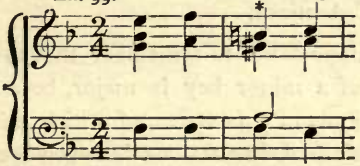
150. At * Ex. 97 is the fourth inversion of the minor thirteenth of A. It can only be formed by taking upwards the ninth, which is in the bass.

Ex. 98.



151. At * Ex. 98 is the fifth inversion of the chord of the minor thirteenth of G minor.

Ex. 99. BEETHOVEN. Symphony, No. 8.



152. At * Ex. 96 is the sixth inversion of the chord of the minor thirteenth of A minor.

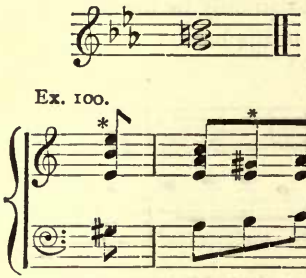
CHAPTER VII.

153. Next follows the dominant series of chords in the minor key.

CHORD OF THE FIFTH.

(DOMINANT COMMON CHORD.)

The first three notes give the common chord of the dominant. (chord No. 16).

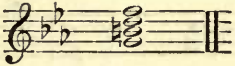


154. At * * Ex. 100 are the first and second inversions of the common chord of E, having a major third because it is the dominant of A minor.

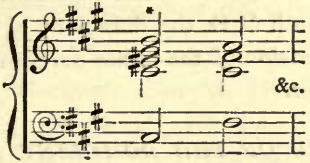
155. It is of importance to remember that the dominant common chord of a minor key is major, because through this chord, or chords of this series, of which it is the basis, are made those elegant fluctuations between the major and minor mode, so characteristic of modern music; the major third of the dominant being, as subtonic, capable of leading the harmonies into either mode. (See § 27.)

CHORD OF THE DOMINANT SEVENTH.

156. The next combination of thirds produces the chord of the minor seventh in the dominant of a minor key (chord No. 17.)

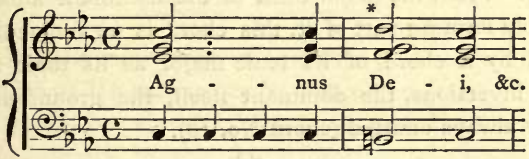


Ex. 101.



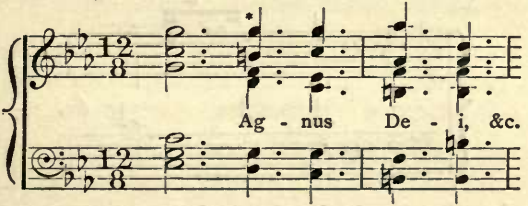
157. At * Ex. 101 is the chord of the minor seventh of C♯, the dominant of F♯ minor.

Ex. 102. MOZART. *12th Mass.*



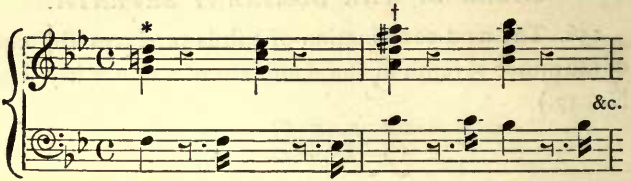
158. At * Ex. 102 is the first inversion of the chord of the minor seventh of G, the dominant of C minor.

Ex. 103. BEETHOVEN. *Mass in C.*



159. At * Ex. 103 is the second inversion of the chord of the minor seventh of G, the dominant of C minor.

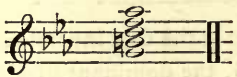
Ex. 104. MOZART. Symphony in G minor.



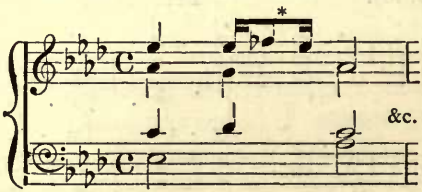
160. At * Ex. 104 is the third inversion of the chord of the minor seventh of G, the dominant of C minor. At † is the third inversion of the minor seventh of D, the dominant of G minor.

CHORD OF THE DOMINANT NINTH.

161. The next combination of thirds produces the chord of the minor ninth, the most important chord in modern music. From the major third of the dominant almost invariably forming part of it, this chord is as frequently followed by a chord of its tonic major as its tonic minor. In its inversions, the dominant itself, the ground-note, is nearly always omitted (chord No. 18).

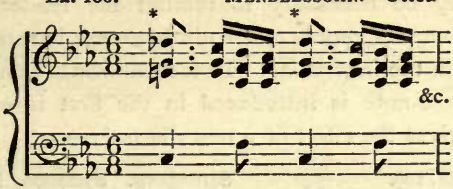


Ex. 105. SPOHR. Quartet in E♭.



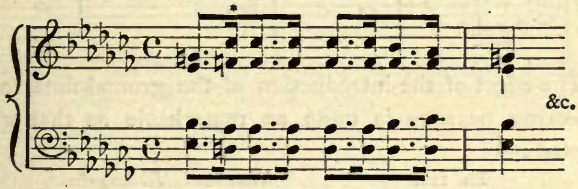
162. At * Ex. 105 is the chord of the minor ninth of E♭ resolved on to its tonic major.

Ex. 106. MENDELSSOHN. Ottet.



163. At * Ex. 106 is the chord of the minor ninth of C resolved on to its tonic minor.

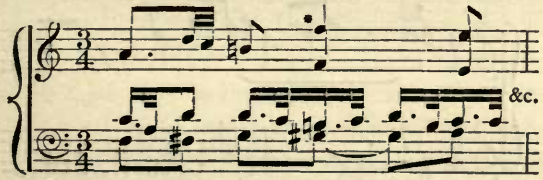
Ex. 107. BEETHOVEN. Pianoforte Sonata. Op. 26.



164. At * Ex. 107 is the first inversion of the chord of the minor ninth of B♭ resolved on to its tonic major.

This chord is generally known as the chord of the *diminished seventh*, because that interval is found between the bass note (the third of the ground-note) and the minor ninth of the ground-note.

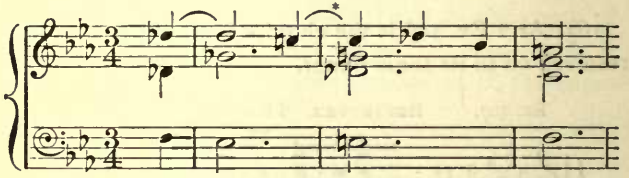
Ex. 108. BEETHOVEN. Pianoforte Sonata. No. 18. Op. 7.



165. At * Ex. 108 is the first inversion of the chord of the minor ninth of E, resolving on to its tonic minor.

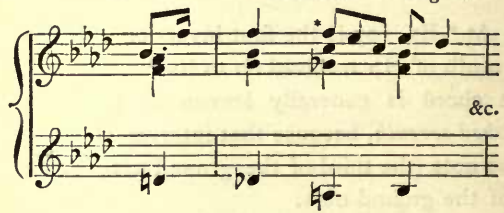
It may be necessary to remind the reader that the ground-notes of chords of the ninth, except in rare cases, are omitted in the inversions. In the following example (109) the ground-note is introduced in the first inversion, and almost gives the effect of a new discord:—

Ex. 109. SCHUMANN. Symphony No. 3.

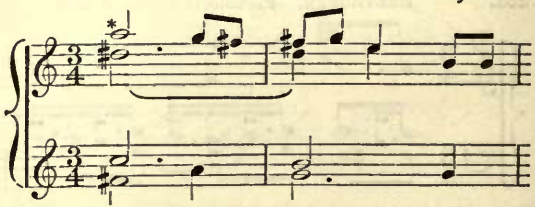


The effect of the introduction of the ground-note in the following passage is quite as remarkable as that above quoted:—

Ex. 110. WAGNER. *Lohengrin.*

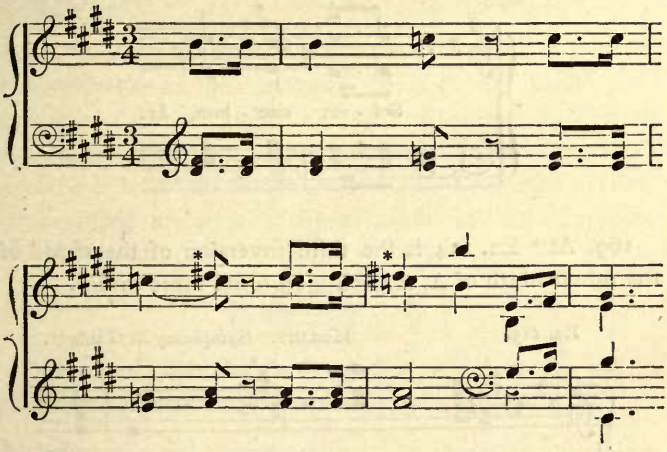


Ex. 111. F. HILLER. *Nala and Damayanti.*



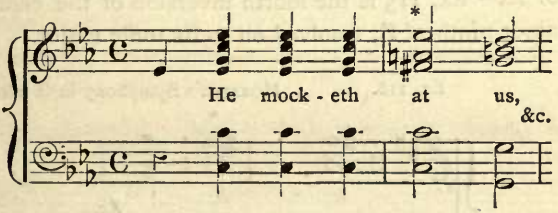
166. At * Ex. 111 is the second inversion of the chord of the minor ninth of B, resolved on to its tonic minor.

Ex. 112. MENDELSSOHN. Pianoforte Concerto. Op. 25.



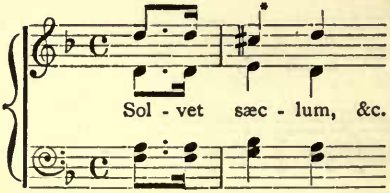
167. At * Ex. 112 is the second inversion of the chord of the minor ninth of B, resolving on to its tonic major.

Ex. 113. MENDELSSOHN. *Elijah.* No. 5.



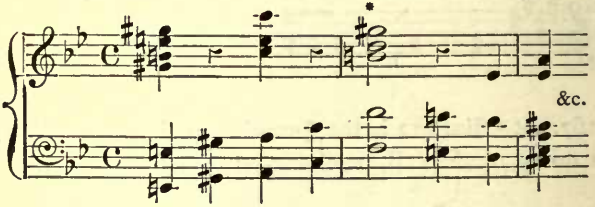
168. At * Ex. 113 is the third inversion of the chord of the minor ninth of D, resolving on to its tonic major. This exhibits a not unfrequent, but somewhat irregular resolution of the minor seventh in the bass. The regular resolution of the ninth atones for this fault.

Ex. 114. MOZART. *Requiem.* "Dies iræ."



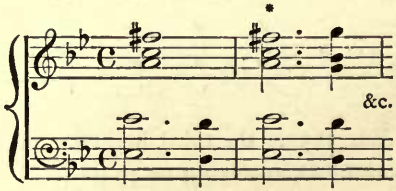
169. At * Ex. 114 is the third inversion of the chord of the minor ninth of A, resolving on to its tonic minor.

Ex. 115. MOZART. Symphony in G minor.



170. At * Ex. 115 is the fourth inversion of the chord of the minor ninth of E, resolved on to its tonic major.

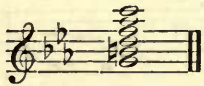
Ex. 116. MOZART. Symphony in G minor.



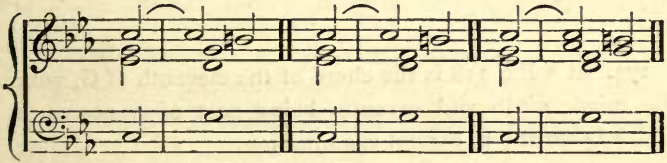
171. At * Ex. 116 is the fourth inversion of the chord of the minor ninth of D, resolving on to its tonic minor.

CHORD OF THE DOMINANT ELEVENTH.

172. The next combination of thirds produces the chord of the eleventh on the dominant. This chord, like its predecessors in the dominant series of a minor key, is often resolved into the major mode of its tonic. It is distinguished from the chord of the dominant eleventh of the major series by including under it a minor ninth, instead of major. (Chord No. 19.)

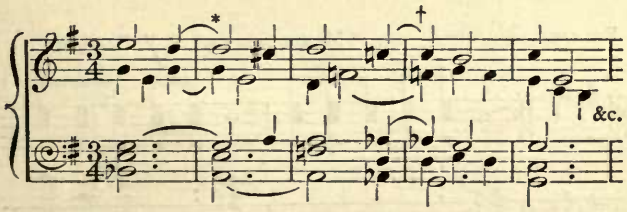


This chord, like the corresponding chord of the major series (§ 101), occurs in the following forms :—



In the first, the fifth only is heard with the eleventh ; in the second, the seventh is also heard ; in the third, both seventh and ninth appear.

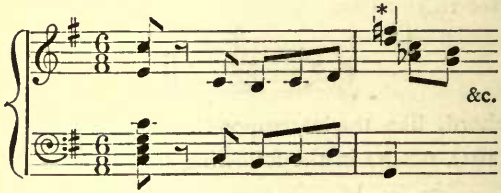
Ex. 117. BEETHOVEN. *Mass in D.* Introduction to "Benedictus."



173. At * Ex. 117 is the chord of the eleventh of A with

the minor seventh, but without the minor ninth, resolving on to its tonic minor. At † is the chord of the eleventh of G, including the minor ninth and seventh, but resolving on its tonic major. It will be thus seen that the chord may be followed by its tonic major or minor, without reference to the use of the seventh or ninth.

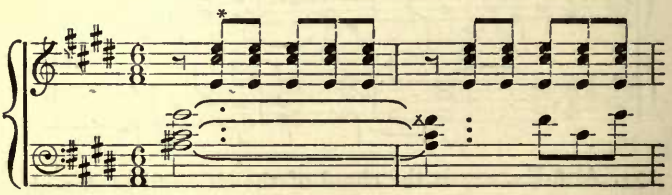
Ex. 118. MOZART. Symphony in D. No. 1.

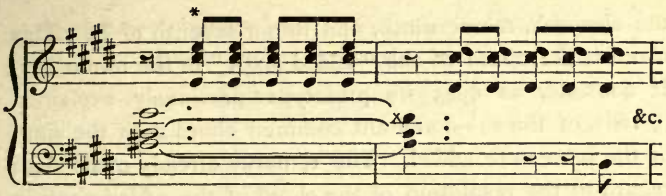


174. At * Ex. 118 is the chord of the eleventh of G, with the minor ninth and seventh, being part of a sequence which is worthy of careful examination.

175. As would be expected, the eleventh and third, if heard together, would form a very harsh combination; the first inversion, therefore, which would have the third of the dominant in the bass, may be passed over.

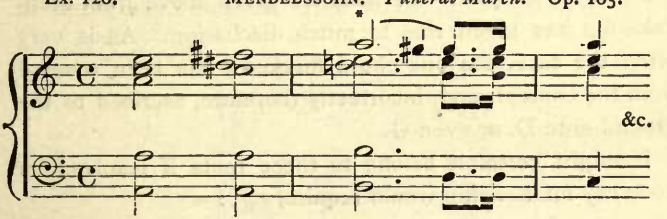
Ex. 119. MENDELSSOHN. P. F. Capriccio.



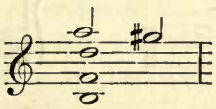


176. At * Ex. 119 is the second inversion of the chord of the eleventh and minor ninth and seventh of D♯.

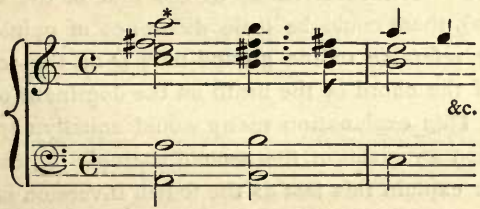
Ex. 120. MENDELSSOHN. *Funeral March.* Op. 103.



177. At * Ex. 120 is the second inversion of the chord of the eleventh and minor seventh of E, without the minor ninth. When the ninth is included it nearly always takes the place of the ground-note, *e.g.* :—



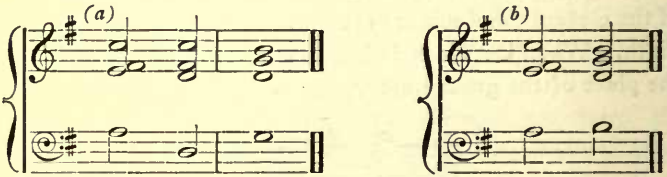
Ex. 121. MENDELSSOHN. *Wedding March.*



178. At * Ex. 121 is the third inversion of the chord of

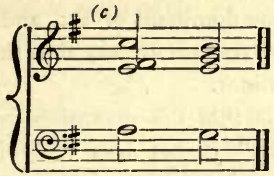
the eleventh, minor ninth, and minor seventh of B. This chord is the chord of the "added sixth" in the minor key. It consists, as does its prototype previously explained (§ 106), of the sub-dominant common chord with the sixth of the bass note added. The remarks already made with regard to the resolution of the chord of the added sixth in a major key, apply with equal force to the chord now under consideration. Although as a rule this chord is easily recognised, the particular instance given above from Mendelssohn has given rise to much discussion. As is very often the case, the one chord marked * has been severed from the context, and, incorrectly therefore, ascribed to the ground-note D, or even G.

It might certainly belong to these roots if resolved as their key relationship would require, *e.g.*:—

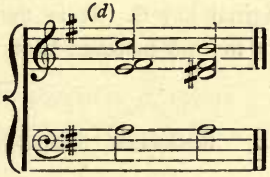


If the chord were resolved as in the first of the above examples (*a*), there could be little difference of opinion as to its being referable to the ground-note D as the second inversion of the chord of the ninth on the dominant of the key of G. This explanation many would equally apply to the resolution as given in the second example (*b*), though some others explain this last as the fourth inversion of the tonic thirteenth of G, including the seventh and ninth.

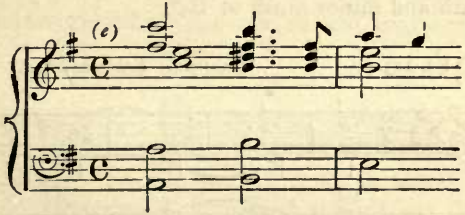
Had it been resolved in the following way, Ex. (*c*) :—



some writers would ascribe it to the ground-note E, others to the ground-note B. But when it is resolved, as in Ex. (*d*) :—



almost all are agreed that the ground-note can only be B. But it has been pointed out in § 106 that the upward resolution of the seventh in the bass is as reasonable as it is common; and, on comparing Ex. (*d*) with the quotation from Mendelssohn's "Wedding March," it will be seen that this movement of the bass-note constitutes the only difference between them.

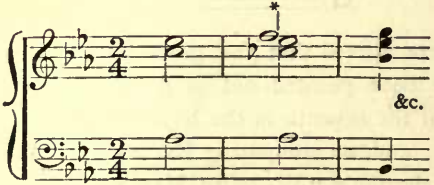


As written out in the above example (*e*), there are few

who could do otherwise than consider the first chord as coming from B, the dominant of E; and there is probably no one who would venture to say that the fragment is not in the key of E minor.

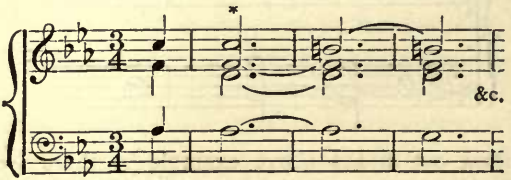
Now the fact is that the quotation from Mendelssohn's "Wedding March" is not less truly in the key of E minor than if that signature actually occurred, and its use in the opening of this March is both original and effective. The piece is so well known that it is unnecessary to do more than to refer to the two chords which so ingeniously link it to the original key C. It is by ignoring the key tonality of E minor in this passage that so many analysts have gone astray.

Ex. 122. SCHUMANN. Symphony in C.



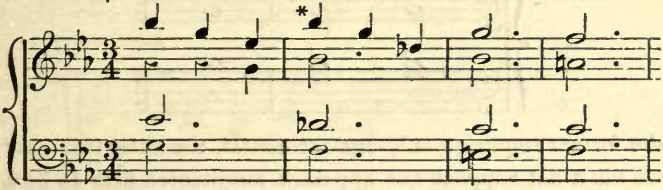
179. At * Ex. 122 is the third inversion of the chord of the eleventh and minor ninth of B♭.

Ex. 123. BRAHMS. *Schicksalslied.*



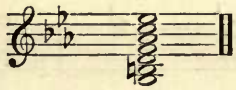
180. At * Ex. 123 is the fourth inversion of the chord of the eleventh and minor ninth of G.

Ex. 124. BRAHMS. *Schicksalslied.*

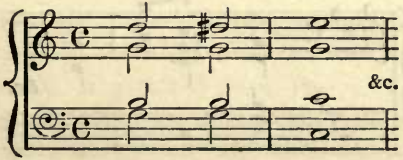


181. At * Ex. 124 is the fifth inversion of the chord of the eleventh and minor ninth of C.

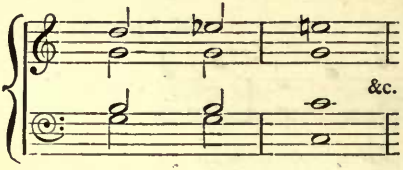
182. The next combination of thirds produces the chord of the minor thirteenth. This chord is also resolved on to the major tonic—



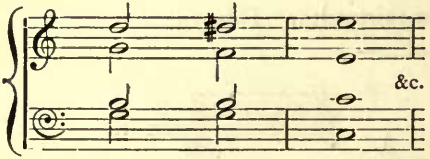
as well as on to the minor tonic. In the former case the minor thirteenth generally ascends to the major third of the tonic. But, as it is a general custom to write ascending semitones with sharps, and descending with flats, the minor thirteenth often appears as an augmented fifth, *e.g.*:—



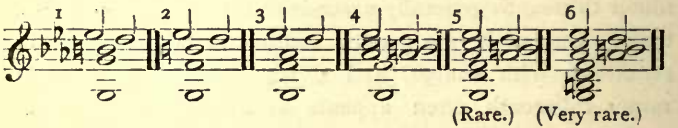
It cannot be denied that this can be much more easily read than —



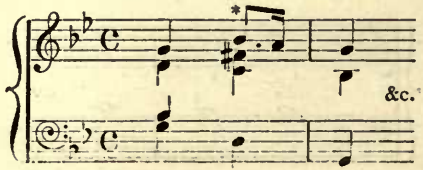
the former requiring only one accidental, the latter two; but we must not suppose the apparent augmented fifth to be a major third of the subtonic, inasmuch as subtonic harmony rarely, if ever, precedes that of the tonic, and moreover, a dominant seventh is not unfrequently part of the chord, *e.g.*:—



This chord has, like its namesake of the major series, the following forms (compare § 109):—

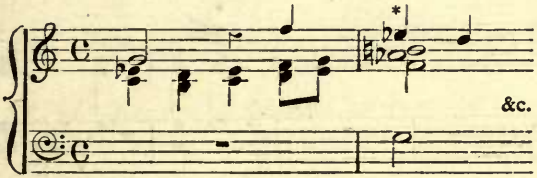


Ex. 125. SCHUBERT. Pianoforte Sonata. Op. 122.



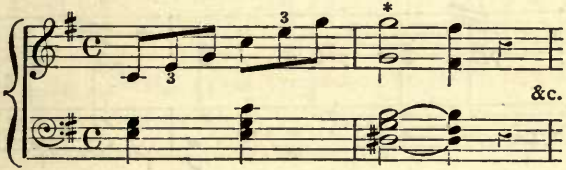
183. At * Ex. 125 is the chord of the minor thirteenth of D, including the seventh.

Ex. 126. SCHUBERT. Pianoforte Sonata. Op. 42.



184. At * Ex. 126 is the chord of the minor thirteenth of G, including the minor ninth and seventh.

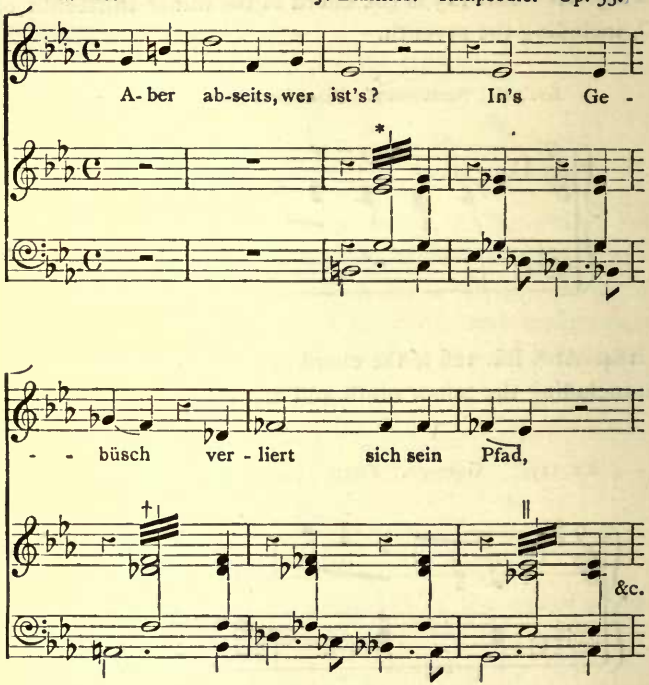
Ex. 127. GOUNOD. *Faust.* Introduction to Act. IV.



185. At * Ex. 127 is the first inversion of the chord of the minor thirteenth of B. For an example of this chord, including the ninth, see the first chord of Ex. 135.

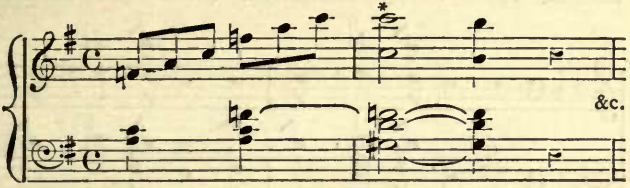
186. As the minor thirteenth of the dominant is the same note as the third of the minor scale, the minor thirteenth not unfrequently is retained until the tonic chord is heard, as in the following examples. (Compare § 108, *Note.*)

Ex. 128. J. BRAHMS. Rhapsodie. Op. 53.



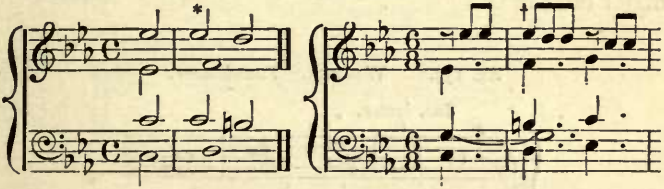
187. At * 128 is the first inversion of the chord of the minor thirteenth of G. At † is the first inversion of that of F, and at ‖ the first inversion of that of E♭. In § 123 it was remarked that some chords seem to be almost common to both tonic and dominant ground-notes in the minor key. The chords above described are of this nature, and might be explained in each case as the third inversion of the chord of the tonic seventh (see § 129), derived from the ground-notes C, B♭, and A♭ respectively.

Ex. 129. GOUNOD. *Faust.* Introduction to Act IV.



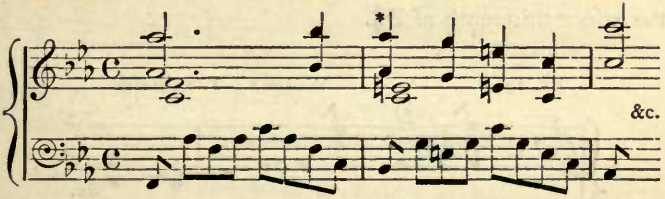
188. At * Ex. 129 is the first inversion of the chord of the minor thirteenth of E, including the minor ninth and minor seventh.

Ex. 130. BEETHOVEN. P. F. Sonata. Op. 7.



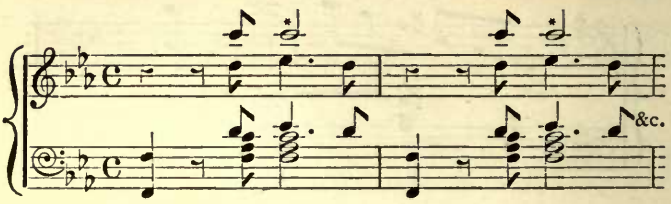
189. At * Ex. 130 is the second inversion of the chord of the minor thirteenth of G, including the eleventh; at † is the same chord without the eleventh.

Ex. 131. BEETHOVEN. Overture to *Coriolanus.*



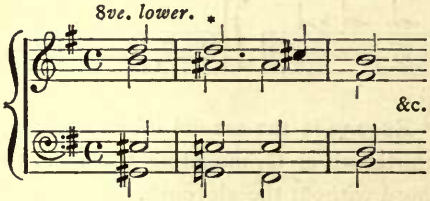
190. At * Ex. 131 is the third inversion of the chord of the minor thirteenth of C.

Ex. 132. BEETHOVEN. Overture to *Coriolanus*.



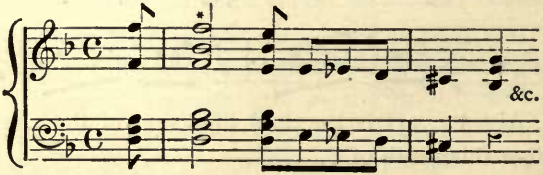
191. At * Ex. 132 is the third inversion of the chord of the minor thirteenth of G, including the eleventh, minor ninth, and minor seventh; the eleventh displacing the major third of G.

Ex. 133. WAGNER. *Tannhäuser*.



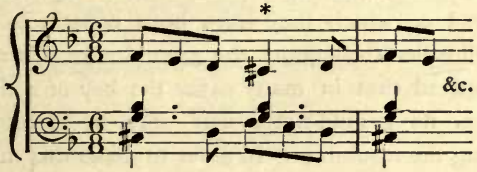
192. At * Ex. 133 is the fourth inversion of the chord of the minor thirteenth of F♯.

Ex. 134. WAGNER. *Tannhäuser*.



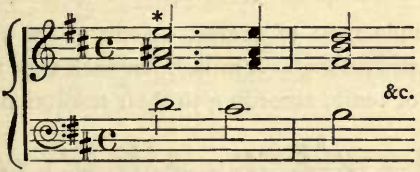
193. At * Ex. 134 is the fifth inversion of the chord of the minor thirteenth of A.

Ex. 135. BEETHOVEN. Pianoforte Sonata, No. 3. Op. 10.



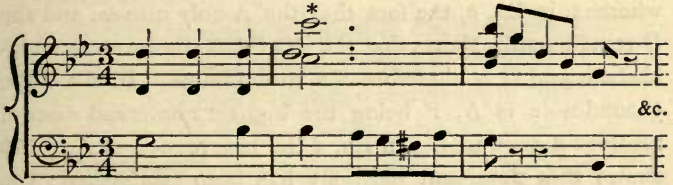
194. At * Ex. 135 is the sixth inversion of the chord of the minor thirteenth of A.

Ex. 136. SCHUMANN. *Paradise and the Peri.* No. 9.



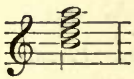
195. At * Ex. 136 is the sixth inversion of the chord of the minor thirteenth of F♯.

Ex. 137. MOZART. Symphony, G minor. *Minuet.*

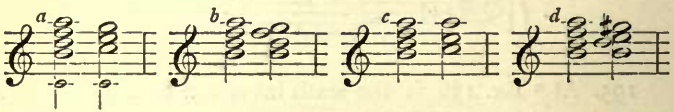


196. At * Ex. 137 is the sixth inversion of the chord of the minor thirteenth of D, the third being omitted until the thirteenth is resolved.

197. We have now come to the conclusion of our series of chords formed from the scale, major and minor. It may be necessary to remind the reader that the first object of the analysis of chords is to find out their key, and that the key sound on which they have been constructed is what has been called throughout the ground-note. It must have been noticed that in many cases the key of a chord, and, therefore, its ground-note, can only be determined by observing the resolution. In order to make this more plain, let us take the following chord, and ask what ground-note it may have:—



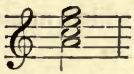
These sounds may, of course, belong to the key of C, but they may also belong to A minor. In each case they may be dominant or tonic, according to their resolutions, thus:—



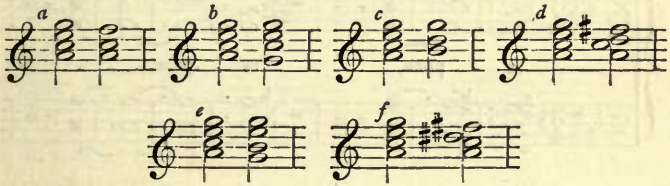
In Ex. *a* the progression of A downwards, while B proceeds upwards to C, points to the ground-note C; whereas, in Ex. *b*, the fact that the A only moves, and the B remains still, shows that the dominant harmony is established, and G is therefore the ground-note. In Ex. *c* the ground-note is A, F being the highest numerical discord resolved downwards. In Ex. *d* the progression of A to G♯ shows that dominant harmony has been established; the root is therefore E. The explanation of these resolutions will be found by comparing them with the examples as they have been given in this work.

Chord *a* is shown in Ex. 37, p. 37.
Chord *b* is shown in Ex. 47, p. 43.
Chord *c* is shown in Ex. 97, p. 69.
Chord *d* is shown in Ex. 120, p. 79.

Another doubtful chord in common use is the following :—



This may be resolved in the following ways :—



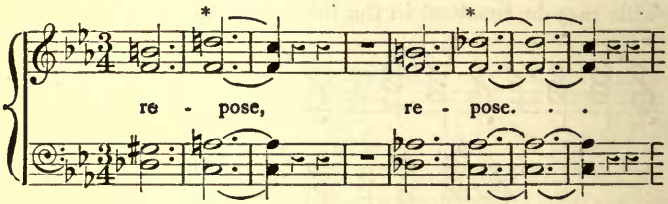
In Ex. *a* the ground-note is F. In Ex. *b* it is C. In Ex. *c* it is G. In Ex. *d* it is D. In Ex. *e* it is E. It Ex. *f* it is B. The explanation of these resolutions will be found by comparing them with the examples as they have been given in this work.

Chord *a* is shown in Ex. 15, p. 28.
Chord *b* is shown in Ex. 42, p. 39.
Chord *c* is shown in Ex. 40, p. 38.
Chord *d* is shown in Ex. 56, p. 46.
Chord *e* is shown in Ex. 98, p. 69.
Chord *f* is shown in Ex. 132, p. 88.

As chords of this nature are generally short forms of high numerical chords, their relation both to a major and minor

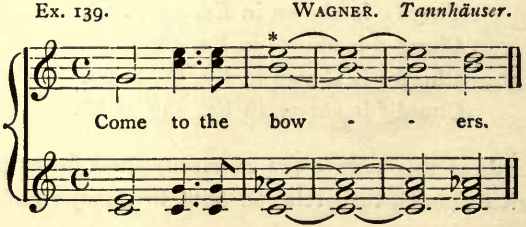
scale has been generally overlooked by those who object to the classification of chords here adopted. But it must be remembered that such doubtful chords are common to a major key and its *relative* minor, and that their effect must therefore not be confused with that produced by the alternation of major and minor chords of the same tonic to which allusion has been before made, and which might well be illustrated by the following quotation :—

Ex. 138. BRAHMS. *Schicksalslied.*



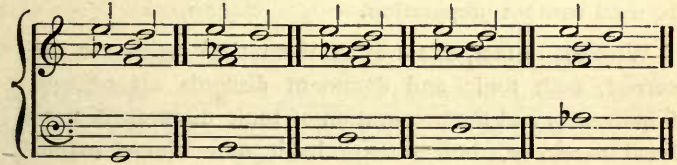
The doubtful tonality of the chords first alluded to, is exemplified even in the works of the old masters, but the contrasts such as that exhibited above are almost peculiar to modern writers, in whose works this mixture of tonic major and tonic minor is becoming such an important element that chords are being formed of an admixture of both tonalities. The following chord may be taken as a specimen of this class :—

Ex. 139. WAGNER. *Tannhäuser.*



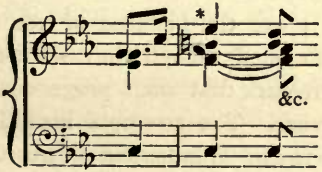
The chord marked * in the above contains a major third, minor seventh, and minor ninth of G, to which is added the tonic C, and its major third E, the former being derived from the minor scale, the latter from the major.

This fact remains, if, in preference to the above explanation, the chord be looked upon as formed by the major third, minor seventh, minor ninth, and major thirteenth of G, heard over the tonic C. This chord, without the note C, occurs in several positions, *e.g.* :—



It will be instructive to compare the effect of the chord as used by Wagner in the above quotation with that produced by the purely minor form of the chord, as given in the following example :—

Ex. 140.



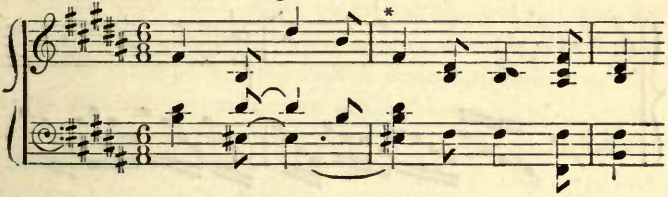
198. It will probably have been noticed that suspensions have not had the important position assigned to them in this work which they usually hold in treatises on Harmony, by being separated from the tonic or dominant series to which they belong, and explained under various

heads. Formerly, discords were divided into two great classes, fundamental discords and discords of suspension. This system arose from two causes: first, because authors had come to an erroneous conclusion that certain discords, being the intervals produced by a mathematical ratio, were specially entitled to be called fundamental; secondly, because it was found that tonic discords (discords of the tonic series) were generally prepared, and it was hence supposed that they never could or would be used without preparation.

Whereas in fact, as far as mathematical ratios are concerned, both tonic and dominant discords are of equal importance, and the preparation of tonic discords is not a legal necessity, but a mere habit now almost extinct. Finding, therefore, that dominant series of discords were often used without preparation, and tonic series nearly always with preparation, some authors constructed the following definition of a fundamental discord:—"A discord that can be used without preparation." Of course, numerous instances of unprepared tonic discords were quoted by the unconvinced to prove the badness of the definition, but all arguments, founded though they were on facts, were crushed by the remark that such progressions could only be written *by licence*. The attempts made in some works to distinguish between "fundamental discords," and "discords" which ought to be of "suspension," but which *by licence* are "unsuspended," are more amusing than profitable. Again, some have drawn a distinction between a suspension and retardation, the former being a prepared discord resolved downwards, the latter a prepared discord resolved upwards.

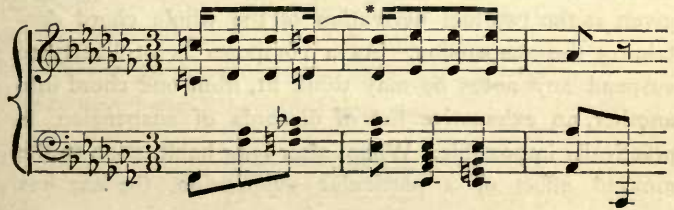
199. A discord of suspension we define as "a note or notes sustained from one chord into another, to which it or they bear no relation." If the list of legitimate chords, made of scale thirds, be borne in mind, it will be seen that the above definition prescribes very narrow limits to the use of the word suspension. It is only when a chord cannot be classified under the head of the tonic or dominant series of a major or a minor key, or under the chords produced by a combination of thirds from two scales, that we may call it a suspension, *e. g.*:—

Ex. 141. SCHUMANN. *Song.* "Der Knabe mit dem Wunderhorn."



The two notes preceding the * Ex. 141 give the ear the impression of a chord of the major ninth and minor seventh of C♯, E♯ being the major third; but at * the E♯ is sustained during an unexpected chord of B, to the chords of which it bears no relation. This note is, therefore, a discord of suspension.

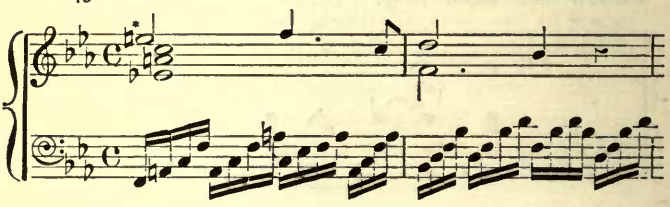
Ex. 142. BEETHOVEN. Pianoforte Sonata. Op. 26.



200. At * Ex. 142 the leading-note of the dominant has, as was the case in Ex. 141, been suspended into the second inversion of the tonic chord; but in Ex. 142 the tonic chord is minor.

201. In the following example the leading-note of the dominant has been used in conjunction with the dominant chord, having a minor seventh. This is one of the most common ways in which a note is heard in combination with the same note chromatically altered, *e.g.*: E♮ and E♭ in the following Ex. :—

Ex. 143. WAGNER. *Tannhäuser.*

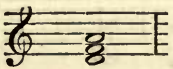


When this note is unprepared, as in the above, it is usually treated more as a melodic auxiliary note than as a constituent part of the chord.

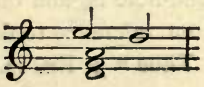
202. In one sense, suspensions are chords derived from two scales, and if it be considered a simpler method so to explain them, the ground-notes of the notes suspended, and of the chord into which they are suspended, might be given as the two-fold derivation of the whole chord containing the suspension. As a composer is at liberty to suspend any notes he may think fit, from one chord into another, an exhaustive list of discords of suspension is practically impossible. When, after long habituation to the musical effect of a particular suspension, the ear has

become ready to adopt the discord *without* preparation, such a chord must not be called a suspension *unsuspended by licence*, but must be treated as a legitimate combination of sounds which will come under the head of those chords spoken of in the following chapter.

203. From the examples of chords already given it must have been evident to the reader that as a fact the tonic and the dominant are the most important ground-notes of the scale, but it may naturally be asked: Why are not other degrees of the scale capable of becoming bases of series of chords? The answer to this is: Other degrees do, in a modified form, bear upon them certain chords, but the number of chords thus to be formed is limited by the fact that any attempt to construct a series of chords on the same principle pursued when forming them upon the tonic or dominant will be found to result in the production of chords having definite tonic or dominant relations, and which have already been explained in their proper place. Let us make the experiment. Of course, every degree of the scale will bear its own common chord, except the seventh. Let us take the common chord of the supertonic :—

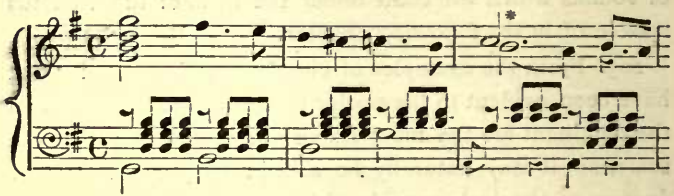


If to this another scale third be added it will be found that the chord has been written which has already been catalogued and explained in Ex. 56, and its inversions more fully in the sections immediately following. If the note C be removed and E be added thus :—

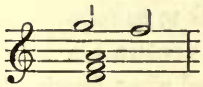


we have a veritable chord of the ninth on the supertonic, a chord of common occurrence.

Ex. 144. WAGNER. *Tannhäuser.*

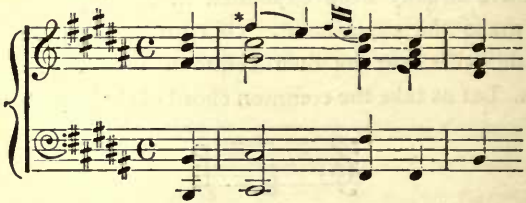


If we put an eleventh on the chord of the supertonic thus :—



we have a chord which is in common use, *e.g.* :—

Ex. 145. WAGNER. *Tannhäuser.*



Inversions of these two chords on the supertonic are commonly met with.

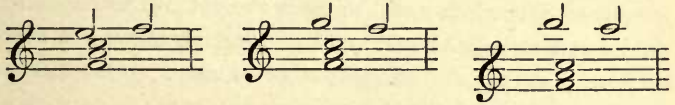
It is unnecessary to trouble the reader with an exhaustive list of such chords, because in their analysis it is easy to see what their ground-note is, and the ground-notes may be plainly stated without reference to their position in the scale of the context. Thus * in Ex. 144 is a chord of the

tonic ninth of A minor, and * in Ex. 145 is a chord of the tonic eleventh on C♯ minor.

The mediant bears hardly any other combination besides its own common chord, for if another third be added to it thus :—

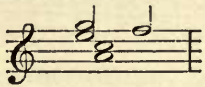
the chord falls at once into the tonic ninth series on the ground-note C. The addition of an F or an A makes, in both cases, a chord which, if its ugliness allowed it to be used, would come under the head of the tonic eleventh or thirteenth, C.

The subdominant will bear a seventh, ninth, and thirteenth thus :—

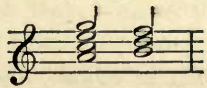


It is unnecessary to give further examples of these, because each would be described as being on the ground-note F, whatever be the key of the piece in which they occur.

A third added to the superdominant common chord produces the first inversion of the ninth on the subdominant when resolved thus :—



but belongs to a dominant root when resolved thus :—



See Exs. 69 & 116.

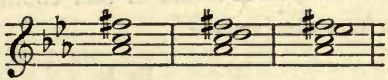
From what has been said above it will be understood that chords on the second, third, fourth, and sixth degrees of the scale are so limited in their growth as to be practically unimportant; and that this limitation is caused by the following facts: 1st, that they can only be made up of notes belonging to the scale of their tonic, on which account they frequently merge into tonic or dominant chords; 2nd, that the chords cannot be considered as belonging to these ground-notes, unless capable of final resolution on to them respectively, as shown in the examples at the commencement of this section; 3rd, that, when so resolving, no note can be introduced outside the scale of the tonic.

CHAPTER VIII.

CHORD OF THE AUGMENTED SIXTH.

204. It is now necessary to consider the construction of a chord which is essentially chromatic. Those previously arranged in the diagram of chords, are, of course, purely diatonic, that is to say, made up of the notes of some one diatonic scale. We have previously spoken of a chord containing the semitone below the dominant in addition to a major common chord (§ 199); and also gave (§ 201) an example of the introduction of that chromatic semitone into a dominant chord. The combination now under consideration bears some analogy to this, being formed of a portion of the minor scale, heard with a semitone below its dominant, for example, in the key of C minor, chords containing F♯.

The following show those chords in their simplest form :—



It is evident that the only difficulty in the explanation of the above chords is the combination of F♯ and A♭.

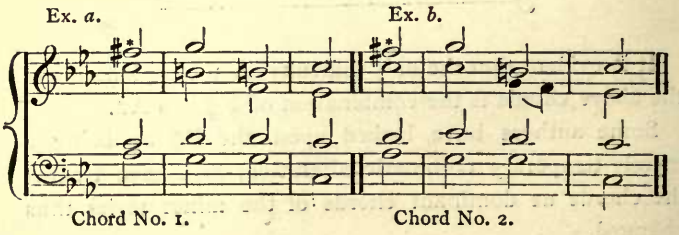
Some authors have looked upon the F♯ as being a merely temporary chromatic alteration, and have treated the chords as dominant chords of the minor series thus changed.

Other authors have looked upon the F♯ as being normal, and the A♭ as being a chromatic alteration from A♮, thus ascribing all such chords to a ground-note one-fifth above the dominant—for instance, D in the key of C minor.

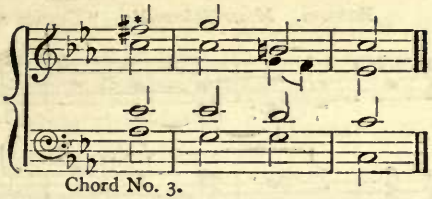
But, in agreeing with this view so far as it ascribes F♯ to the proper ground-note D, it is important that D should not be looked upon as a supertonic in the scale of C minor, but as the *dominant of the dominant*, having the dominant standing between itself and its tonic.

205. The word "supertonic," as meaning the dominant of the dominant, should be carefully avoided. Its use in this sense has already led to a large amount of misunderstanding amongst musical writers. The note in question derives no importance from its relation to the tonic, but only from its relation to the dominant; when writers, therefore, speak of supertonic roots, &c., &c., they use an expression not in itself clear, but from which all doubt may be removed, if only the term "second dominant" be substituted for "supertonic."

206. The following three forms of this chord of twofold derivation are here resolved:—



Ex. *c*.



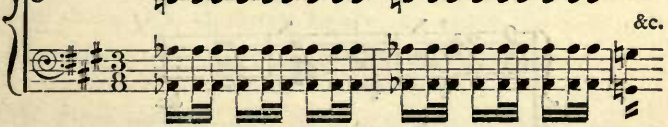
Chord No. 3.

Viewing the common resolutions of this chord as given above, there seems to be no reason why the F♯ should not be considered as a major third of D, and the A♭ as the minor ninth of G. The upward movement of the F♯, and the resolution downwards of the A♭ go far to confirm this theory. Taking this, then, as the basis of our explanation :—

Ex. *a* consists of the minor ninth of the dominant, with the major third and minor seventh of the second dominant. Ex. *b* consists of the minor ninth of the dominant, with the second dominant, its major third and minor seventh. Ex. *c*. consists of the minor ninth of the dominant, with the major third, minor seventh, and minor ninth of the second dominant.

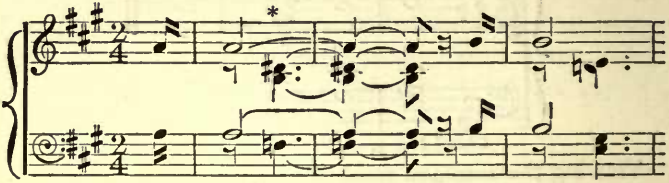
Ex. *a* is only an incomplete form of Ex. *c*, although considered by many a distinct form.

Ex. 1. BEETHOVEN. Symphony, No. 2.



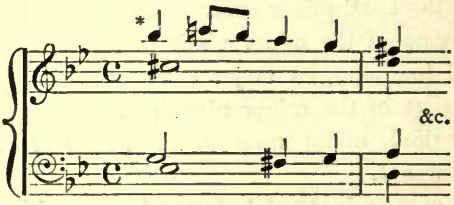
207. At * Ex. 1 is the chord No. 1, derived from G and D, the dominant and second dominant of C.

Ex. 2. ROSSINI. *Messe Solennelle.* "Gratias agimus."



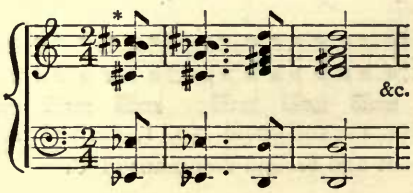
208. At * Ex. 2 is chord No. 2, derived from E and B, the dominant and second dominant of A. It will be seen from this example that chords of this form, like all chords containing dominant harmonies from the minor key, are frequently used in their tonic major.

Ex. 3. MOZART. Symphony, G minor.



209. At * Ex. 3 is chord No. 3, derived from D and A, the dominant and second dominant of G; the minor seventh of D being elegantly introduced into the melody.

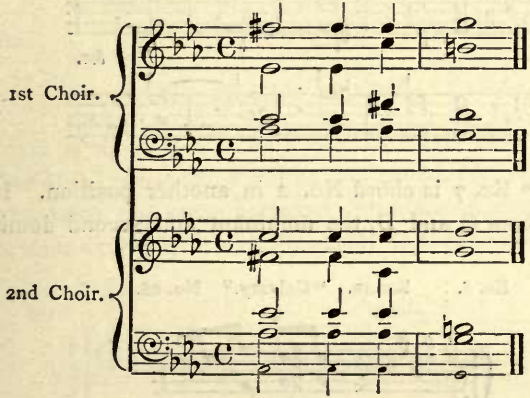
Ex. 4. SCHUBERT. Symphony in C.



210. At * Ex. 4 is chord No. 3, derived from D and A. This example is given to show the direct resolution which involves consecutive fifths. Much vigour is lost by the ordinary resolution given in Ex. *c*, although the supposed fault of consecutive fifths is avoided.

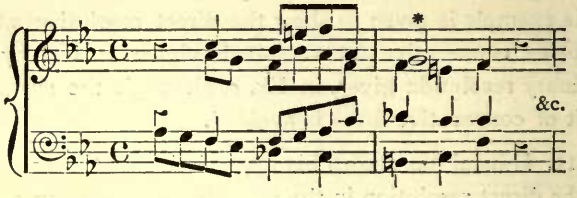
211. Handel has shown his appreciation of the grandeur of the direct resolution in the following example, in which he has avoided the fault of consecutive fifths by ingeniously crossing the voice parts, but the mental effect of fifths, of course, remains.

Ex. 5. HANDEL. *Israel in Egyyt.* No. 15.



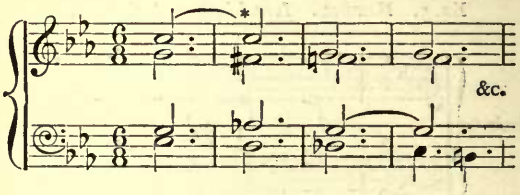
The above (Ex. 5) shows how much pains the author took to observe the letter of the law against consecutive fifths, whilst offending against its spirit. A more modern author would probably have written the consecutives, and added some line or remark to show that they were intentional.

No. 6. BACH. *Passion Music.* No. 25.



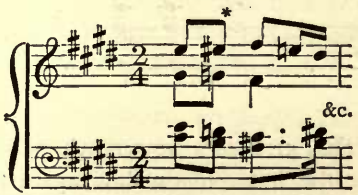
212. At * Ex. 6 is chord No. 2 in a different position. It is derived from C and G, the dominant and second dominant of F.

Ex. 7. GOUNOD. *Faust.* Act III.



213. At * Ex. 7 is chord No. 2 in another position. It is derived from G and D, the dominant and second dominant of C.

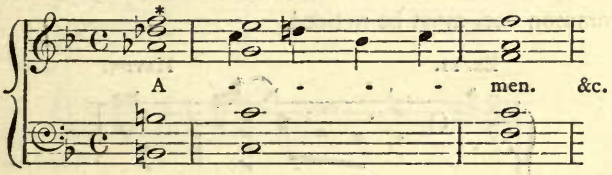
Ex. 8. SPOHR. "Calvary." No. 28.



214. At * Ex. 8 is one of the positions in which No. 3 occurs. It has the seventh of the second dominant (C♯) in the bass; the other ground-note being F♯. This is a

direct resolution; but in consequence of the fifths being inverted, they are fourths, and therefore are not objected to.

Ex. 9. ROSSINI. *Messe Solennelle.* "Cum sancto spiritu."

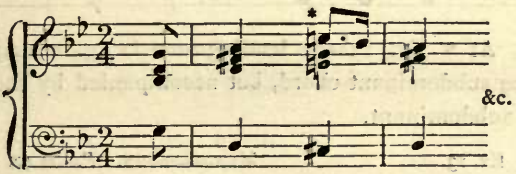


215. At * Ex. 9 is another position of Chord No. 3, derived from C and G, the dominant and second dominant of F. It has the third of the second dominant in the bass.

CHORD OF THE MINOR OCTAVE.

216. A chord frequently found in modern music is somewhat allied to the three chords just explained, inasmuch as it contains the same apparent chromatic semitone below the dominant combined with purely dominant notes.

Ex. 10.

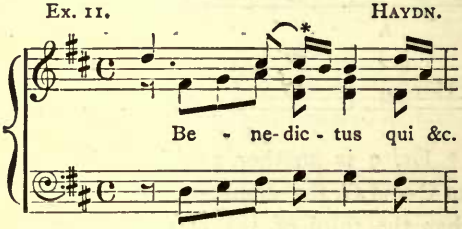


217. At * Ex. 10 is a chord consisting of C, the minor seventh of D, the dominant; and the major third, fifth, and minor seventh (C♯, E, G,) of A, the second dominant of the key of G minor.

CHORD OF LEADING-NOTE AND SUBDOMINANT.

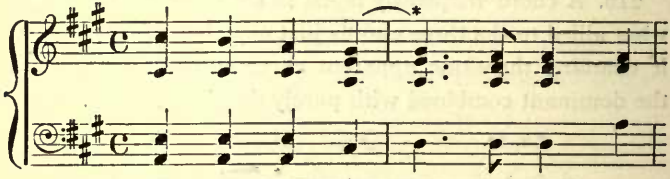
218. A chord derived from two scales, which is now in common use, must be noticed.

Ex. 11. HAYDN.



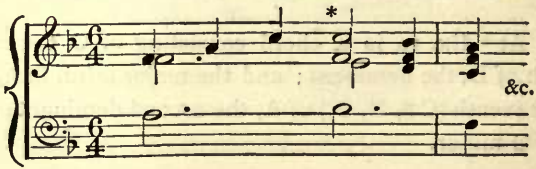
219. At * Ex. 11 the leading-note of the scale has been heard with the subdominant chord.

Ex. 12. SCHUMANN. *Song*, "An den Sonnenschein."



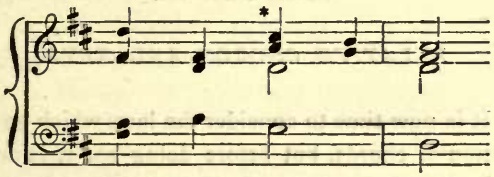
220. At * Ex. 12 the leading-note is again suspended into the subdominant chord, but accompanied by the ninth of the subdominant.

Ex. 13. MENDELSSOHN. *Psalm* 42.



221. At * Ex. 13 only one note of a similar combination is prepared.

Ex. 14.

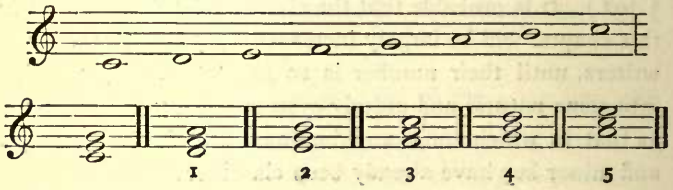


222. At * Ex. 14 neither of the notes are prepared. (See § 202.) It is probable that the class of chords described in this chapter will be largely increased by present and future writers, until their number is so great that they will fall into some natural and orderly system of arrangement, such as that in which tonic and dominant chords of the major and minor key have already been classified.

CHAPTER IX.

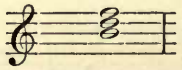
RELATIVE CHORDS AND KEYS.

223. It is now time to consider the laws which govern the progression of chords, but before doing so, it is necessary to ask how many common chords can be made out of the notes of a scale.



In addition to the common chord of the tonic there are here five other chords, which may be conveniently arranged thus :—

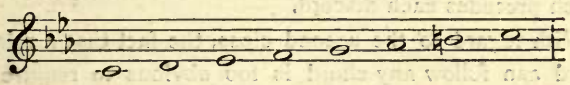
The common chord of the relative minor of the tonic (5).
" " dominant (4).
" " relative minor of the dominant (2).
" " subdominant (3).
" " relative minor of the subdominant (1).

224. The combination  has been omitted from the above series because, although it is called the "imperfect triad," it is, in reality, the first inversion of the chord of the minor seventh of the dominant; the dominant itself, the ground-note, being omitted.

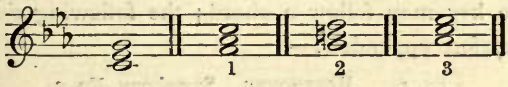
225. These chords are called the *relative chords* of the tonic, and the scales of which they form part are called *relative keys*.

226. A relative chord, therefore, may be defined as a "common chord made up of notes of the tonic scale;" and a relative key as "a key whose tonic chord is a relative chord."

227. With regard to the minor scale—



the only common chords therein contained are—



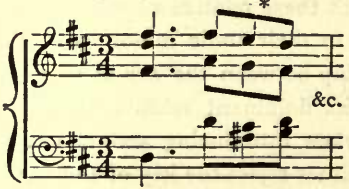
The keys which these relative chords represent are not so closely allied to their tonic minor as might be expected. The relationship between the *key* of C minor and the *key* of G major (its dominant relative chord) is so slight that composers, when introducing second subjects into minor movements, either reject the key of the dominant, and use the relative major in its place, or flatten the third of the dominant, and make it into a new minor key. This subject must not, however, be entered into more fully here, as it is more closely connected with the nature of Form than with that of Harmony. It must suffice to say that a minor key has frequent relationship to the relative keys of its tonic major by means (as already pointed out) of the dominant, which acts as a link between them; and that its connection with its relative keys in general is comparatively unimportant.

228. It may now be stated that any chord may be followed—1st, by a chord of its own tonic or dominant series of chords (major or minor); 2nd, by a relative chord, or a chord from a relative key; 3rd, by a chord which has one or more notes in common with itself.

229. The first of these three classes of progressions will be sufficiently illustrated by an examination of Exs. 1 to 140, special regard being given to the nature of the chord which precedes each discord.

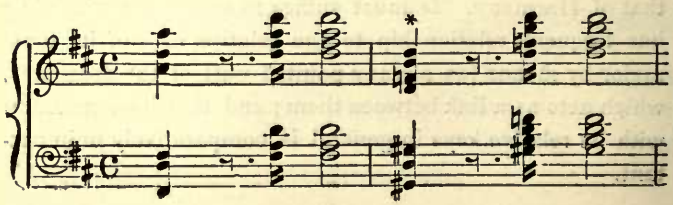
With regard to the second class, the fact that a relative chord can follow any chord is too obvious to require any illustration, but it is not so evident that a chord from a relative key may follow a chord; the following examples are therefore appended:—

Ex. 1. BEETHOVEN. Symphony, No. 2.



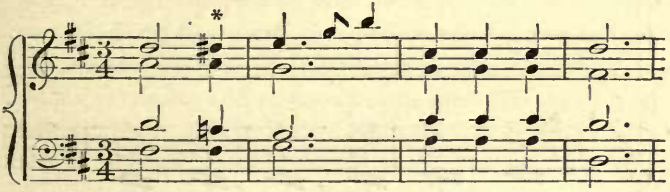
230. The chord * at Ex. 1, which follows the tonic chord of D, is one of the dominant series of B minor, relative minor of D.

Ex. 2.



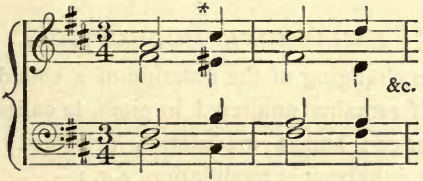
231. The chord at * Ex. 2 is one of the dominant series of A minor.

Ex. 3.



232. At * Ex. 3 the tonic chord is followed by a chord from the dominant series of the relative minor of its subdominant.

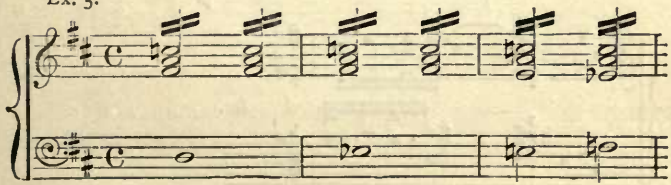
Ex. 4.

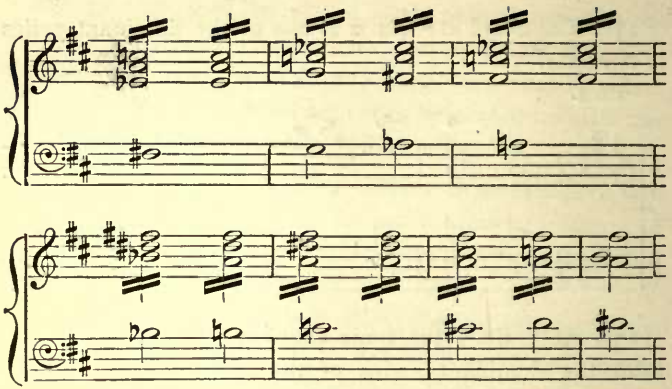


233. At * Ex. 4 the tonic chord is followed by a chord from the dominant series of the relative minor of the dominant.

234. The following passage from Beethoven will show plainly how a note or notes common to both can link two successive chords.

Ex. 5.



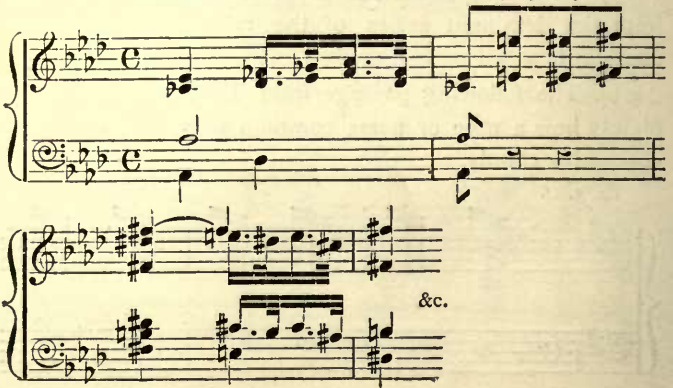


235. It must be remembered that the three classes of progressions do not always exclude each other.

ENHARMONIC MODULATION.

236. The changing of the notation of a sound, while the sound itself remains unaltered in pitch, is called an enharmonic change; and a modulation produced by such a change, an enharmonic modulation, *e.g.* :—

Ex. 6. MOZART. Symphony, E♭.

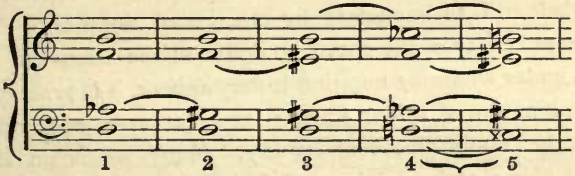


The notes connecting these two keys are E♭ and C♭, the same as D♯ and B♮.

237. It may be well to state here, in order to avoid any confusion in the use of the word "enharmonic," that an enharmonic scale is a scale which *contains* intervals less than a semitone, and an enharmonic modulation is a modulation which *excludes* intervals less than a semitone. It would be more correct to call an enharmonic modulation "a modulation by means of altered notation."

238. One chord is pre-eminently adapted to an alteration of notation: it is the chord of the minor ninth. In the inversions of this chord it must have been observed that the dominant on which it occurs is almost invariably omitted.

There are two reasons for this: 1st, If the dominant is introduced in an upper part, its presence destroys the beautiful combination of minor thirds of which the chord consists; 2nd, if the dominant is introduced at all, it dictates, as it were, a certain resolution, and so robs the chord of its peculiar and useful quality of doubtfulness of key.



No. 5 is merely a complete change of No. 4. It is therefore given as an alternative of No. 4.

No. 1 is derived from G, dominant of C.

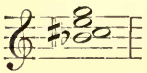
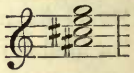
No. 2 „ E „ A.

No. 3 „ C♯ „ F♯.

No. 4 „ B♭ „ E♭.

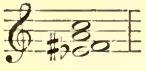
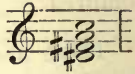
No. 5 „ A♯ „ D♯.

The dominants from which these chords are derived—

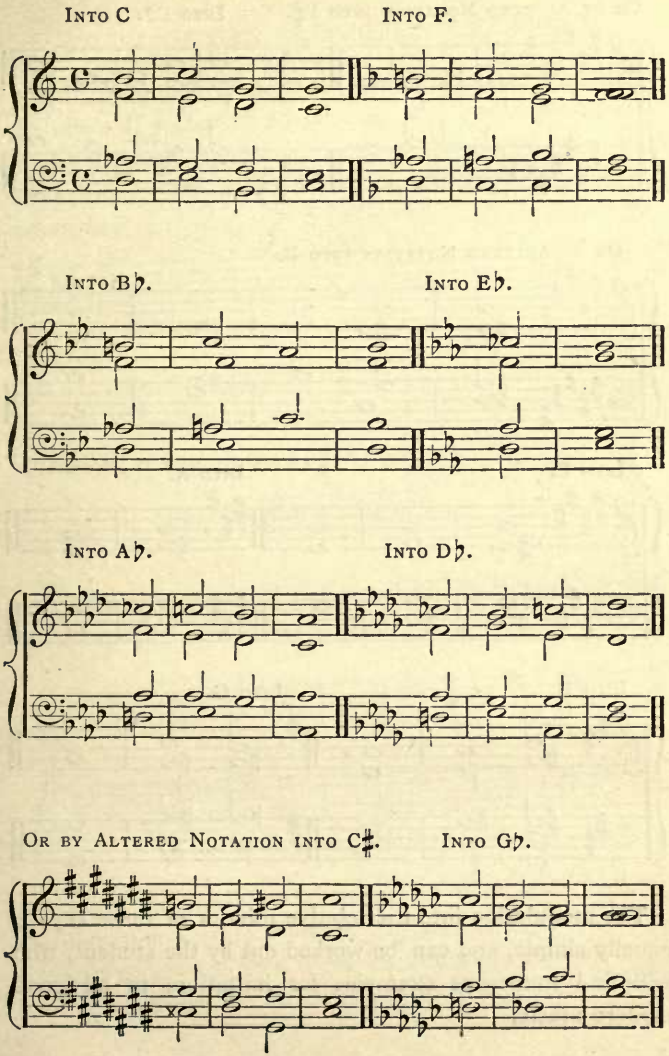
 or, using No. 5 instead of No. 4, 

themselves form an identical combination of minor thirds, C♯, E, G, B♭, or A♯, C♯, E, G.

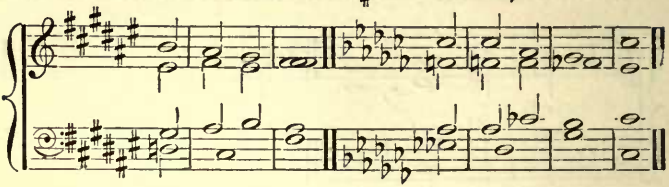
It follows as a natural consequence that their tonics will have a like form, namely—

 or, using No. 5 instead of No. 4, 

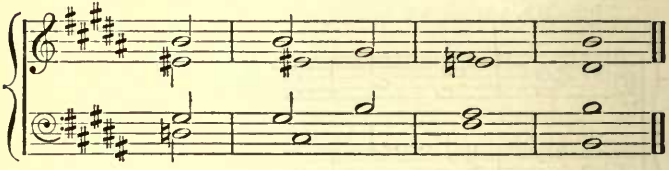
239. Thus, not only is the chord itself of doubtful key, but the dominant and tonic ground-notes form a new chord of doubtful key. If, then, by the construction of a musical sentence the ear is led to associate a definite note as the ground-note of the minor ninth, that note being itself part of a similarly constructed combination, a composer is enabled still to modulate by change of notation. The extreme beauty of the chord no doubt arises from the fact that, under whatever notation it may appear, it is practically a combination of minor thirds: its great usefulness arises from the doubtfulness of its key. Many works on Harmony give sketches of the modulation from this chord into various keys, similar to the following, in which the mere framework of the change of key is shown :—


Into C
Into F.
Into B♭.
Into E♭.
Into A♭.
Into D♭.
Or by Altered Notation into C♯.
Into G♭.

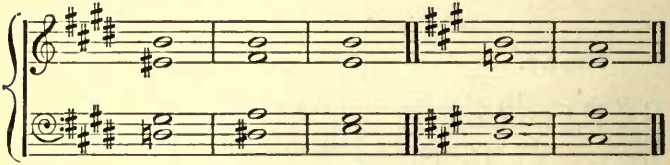
OR BY ALTERED NOTATION INTO F♯. INTO C♭.



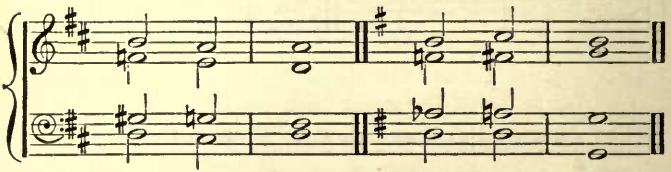
OR BY ALTERED NOTATION INTO B.



INTO E. INTO A.



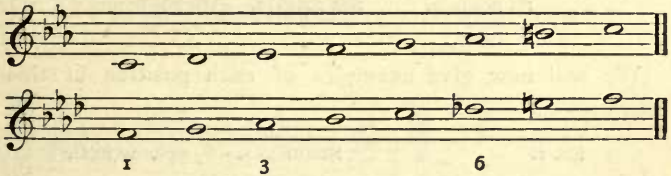
INTO D. INTO G.



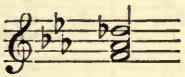
The modulation into the relative minors of these keys is equally simple, and can be worked out by the student, who will find numerous examples for imitation, in all good modern music.

CHORD OF THE FLATTENED SUPERTONIC.

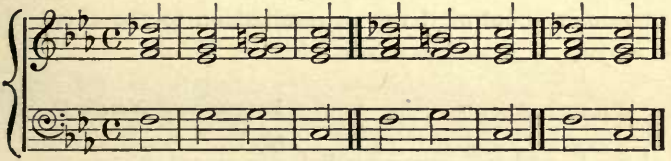
240. There is a chord used generally in the minor key, the effect of which is so striking, and the appearance of which so strange, that it deserves special notice. It is derived from the minor scale of the subdominant of a minor key



Whence (by combining 1, 3, 6), we get



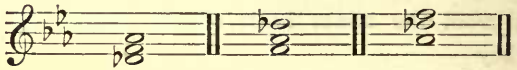
which has been called the chord of the Neapolitan Sixth. It is capable in this form of three resolutions, *e.g.*:—



Each of these may close in C major.

Some authors have gone out of their way to find an explanation for this chord by considering F and A♭ derived from the ground-note G, as its minor seventh and minor ninth; and the D♭, as the minor ninth of a second ground-

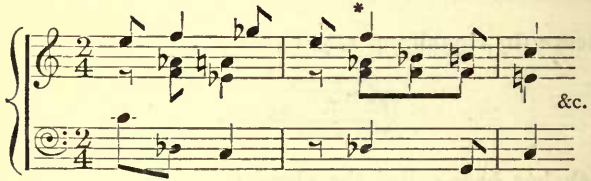
note C. In modern music, however, this chord is reduced to a much simpler form, being treated practically as a common chord of the flattened supertonic. It will be convenient to give it this name and to speak of it as having three positions:—



1st position. 2nd position. 3rd position.

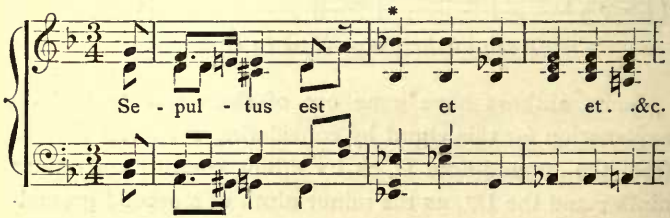
We will now give examples of each position of this chord:—

Ex. 1. SCHUMANN. Symphony in C.



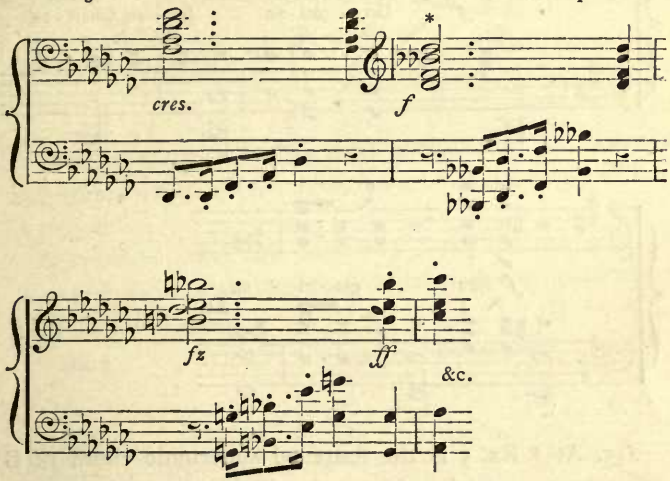
241. At * Ex. 1 is the first position of the flattened supertonic chord of C minor, resolved on to the chord of C major.

Ex. 2. BEETHOVEN. *Mass* in D.



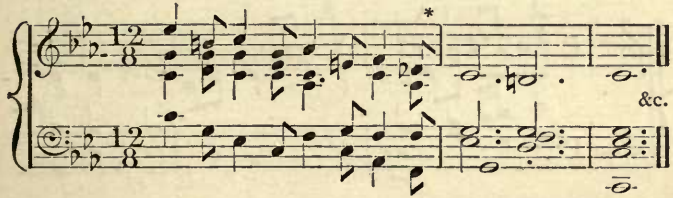
242. At * Ex. 2 is the chord of the flattened supertonic of D minor in the first position.

Ex. 3. BEETHOVEN. P. F. Sonata. Op. 26.



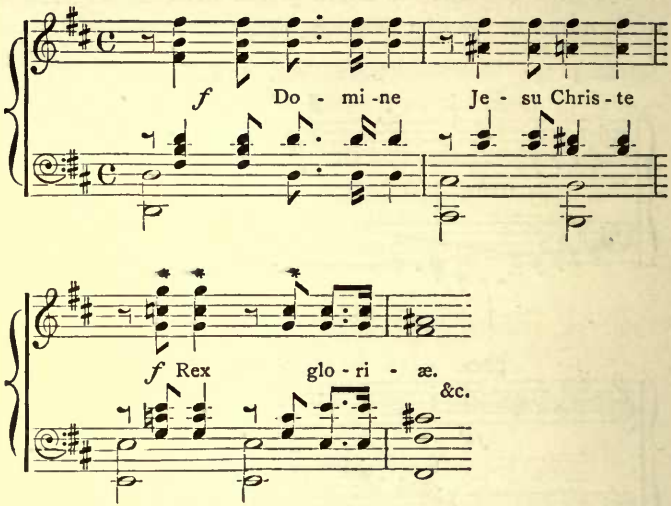
243. At * Ex. 3 is the flattened supertonic chord of A♭ minor in its first position.

Ex. 4. MENDELSSOHN. Fugue for Organ, C minor.



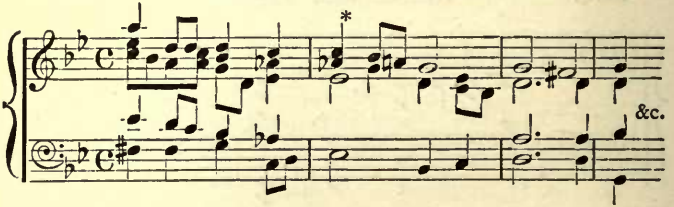
244. At * Ex. 4 will be found the flattened supertonic chord of C minor in its second position.

Ex. 5. SCHUMANN. *Requiem.*



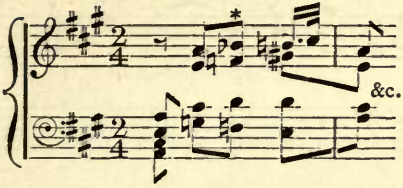
245. At * Ex. 5 is the flattened supertonic chord of B minor in its second position. It will be observed that the resolution in this case is more direct than that shown in Ex. 4.

Ex. 6. HANDEL. *Joseph.*
Chorus, "Thus one with every virtue crowned."



246. At * Ex. 6 is the third position of the flattened supertonic chord of G minor.

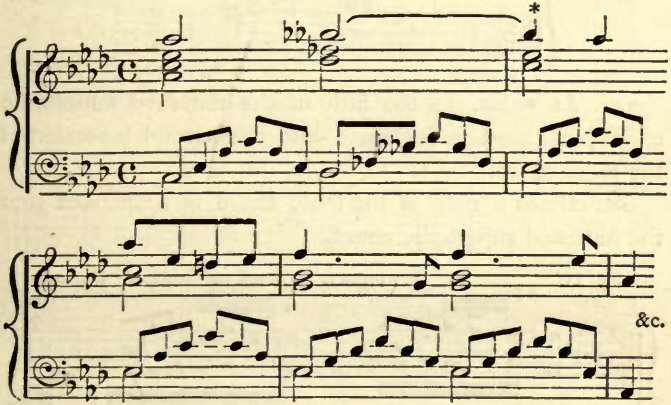
Ex. 7. ROSSINI. *Messe Solennelle.* "Gratias agimus."



247. At * Ex. 7 is the ~~third position~~ of the flattened supertonic chord of A minor, here, however, resolved into A major.

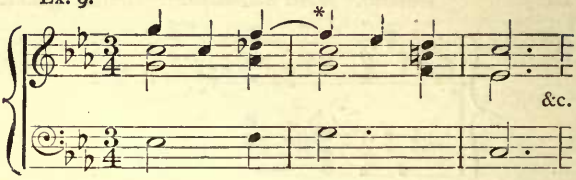
Sometimes notes are sustained from the chord of the flattened supertonic into that which follows, producing a very beautiful effect.

Ex. 8. ROSSINI. *Stabat Mater.* No. 2.



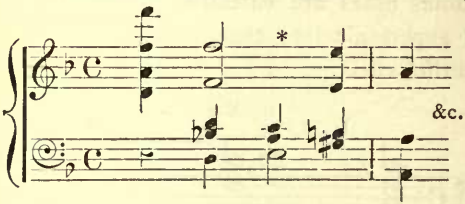
248. At * Ex. 8 the bass note of the flattened supertonic chord of the previous bar is sustained into the second inversion of the tonic chord, producing a most effective suspension.

Ex. 9.



249. At * Ex. 9 the third of the flattened supertonic chord of the previous bar is sustained into the second inversion of the tonic chord.

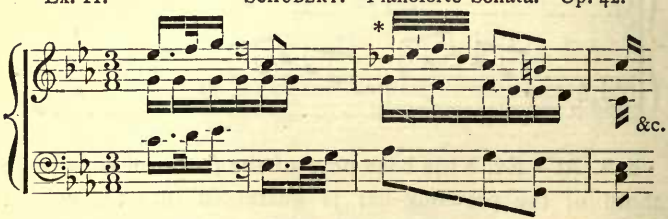
Ex. 10. BEETHOVEN. Pianoforte Sonata. No. 2. Op. 29.



250. At * Ex. 10 the fifth of the flattened supertonic chord just heard is sustained into the second inversion of the tonic chord.

Sometimes a note of the tonic chord is suspended into the flattened supertonic chord.

Ex. 11. SCHUBERT. Pianoforte Sonata. Op. 42.



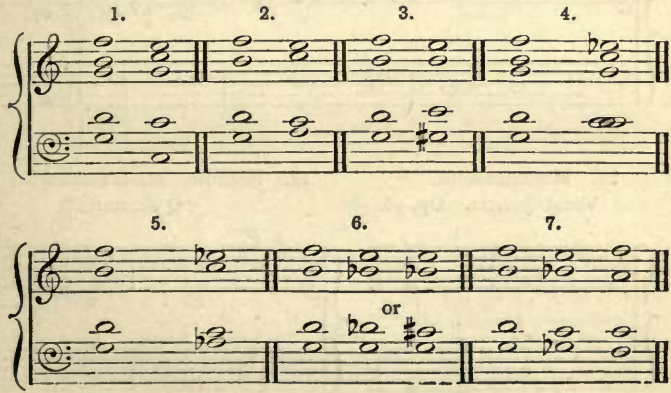
251. At * Ex. 11 the fifth of the tonic is suspended into the chord of the flattened supertonic.

CHAPTER X.

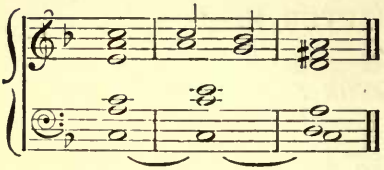
THE MINOR SEVENTH.

252. A discord may be defined as "a chord which requires another to follow it before the ear is satisfied;" and a discordant note as "the note in a discord by the alteration of which the ear becomes satisfied." The movement of the discordant note to a satisfactory sound is called its "resolution," but the word resolution is also used to express the *chord* which removes the unsatisfactory effect of a discord.

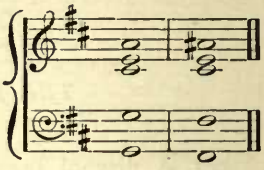
For example, take the chord of the minor seventh, and see how it can be resolved, either on to a concord or on to a discord which, whilst resolving the discordant note itself, introduces a new combination requiring resolution.



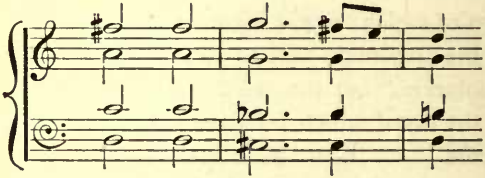
8. HANDEL. *Solomon.* No. 8.



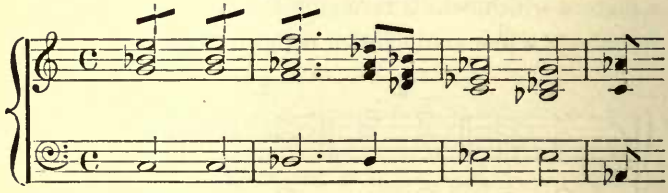
9. SCHUMANN. *Paradise and the Peri.* No. 9.



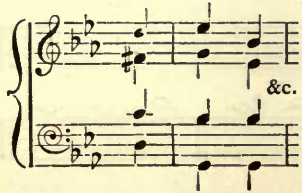
10. MENDELSSOHN. "Lauda Sion."



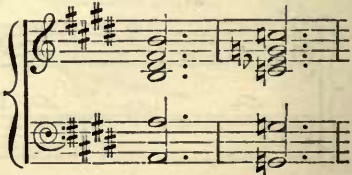
11. HAYDN. *Creation.* "In native worth."



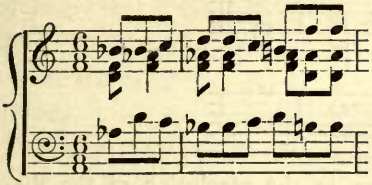
12. MENDELSSOHN. Vocal Quartet. Op. 56.



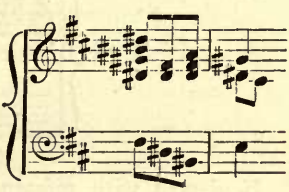
13. ROSSINI. *Messe Solennelle.* "O Salutaris."



14. ROSSINI. *Messe Solennelle.* "Sanctus."



15. BACH. *Passion Music.* No. 47.



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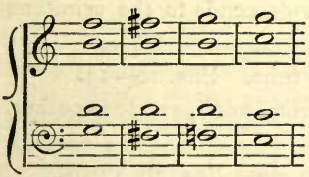
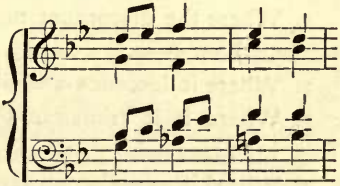
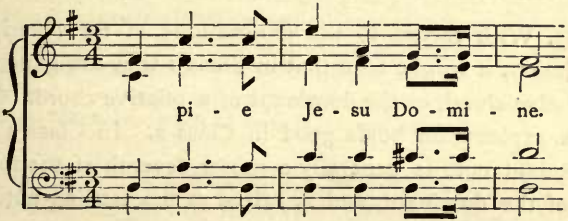


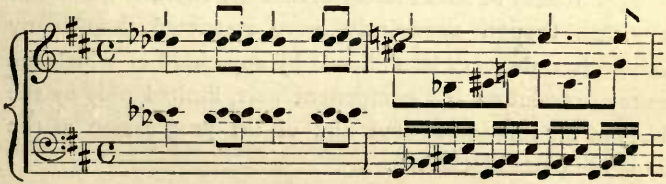
17. BACH. *Passion Music.* No. 38.



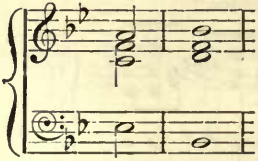
18. SCHUMANN. "Requiem."



19. BEETHOVEN. *Fidelio.* No. 16.



20. HANDEL. *Samson.* No. 11.



If viewed with reference to the resolution of the discordant note, these examples may be classified as follows :—

1. Where the discordant note descends to the semitone below. Exs. 1—9.

2. Where it descends a whole tone. Exs. 10—13.

3. Where it is transferred from one part to another. Exs. 14, 15.

4. Where it ascends one semitone. Exs. 16, 17, 18.

5. Where it is enharmonically changed. Ex. 19.

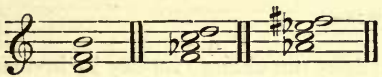
6. Where the resolution is elliptical. Ex. 20.

253. With regard to the ground-note of the chords of resolution, it will be seen that in Class 1 they are generally a relative chord, or the dominant of a relative chord. The same explanation holds good in Class 2. In Class 4 the discordant note is generally a minor seventh of the tonic, not of the dominant, and is raised to the leading-note to produce a tonic close.

254. It may be said therefore, that the chord of the minor seventh, though apparently more restricted than many other discords, may be followed by any chord of which the note of resolution is a component part, limited only by the laws of the relation of keys and of the progression of the separate parts of a chord.

255. In the examples just given, the ground-note has been included in the chord, but it may be now stated generally that if the ground-note of any discord be omitted, more freedom of treatment is obtained. (Compare § 238.)

256. But in those chords in which the ground-note is omitted, it will be noticed that a smoother combination is obtained without it than with it, *e.g.*:—



257. Only a few of the possible resolutions of minor sevenths and ninths have been given in this work; there need be no fear, therefore, that the supply of musical progressions is likely to fall so short as to preclude original composition, especially bearing in mind what is said in § 238; and moreover, knowing that the same progression of actual notes may be thoroughly changed in character by its rhythmical position, melodic structure, and relation to neighbouring keys. The unwillingness of the public, and even of some musical critics, to admit any unusual progression, is at present the real limit to many a composer's invention. If at any future time a lack of diversity in music becomes a genuine complaint, no doubt mathematicians and mechanists will be ready to provide instruments capable of playing a scale with smaller divisions than a semitone, and so create the necessity for an entirely new musical literature. Such an event is far from impossible.

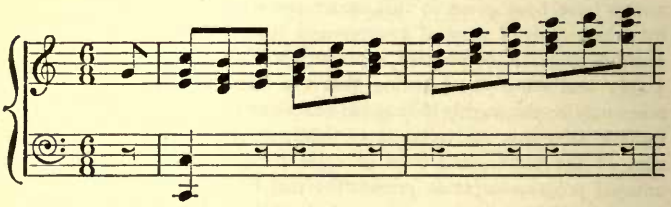
CONSECUTIVE OCTAVES AND FIFTHS.

258. Consecutive octaves are forbidden in all cases where they simply weaken the harmony without reinforcing any theme specially requiring emphasis. It is evident that in a three-part piece of music, if two parts are frequently moving in octaves or unison, one of them is practically useless; but, on the other hand, any musical phrase, how-

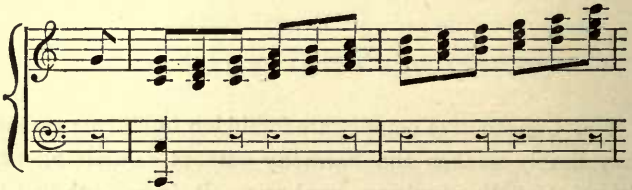
ever short that phrase may be, can be *strengthened* by unison or octaves in writing for voices or instruments.

259. Consecutive major fifths should be used sparingly, as the effect of them when unskilfully handled is bad. The reason generally given for the prohibition of this progression is, that consecutive fifths suggest a succession of different keys. But this may be proved to be false in the following way :—

An interval does not change its key by inversion. Therefore the succession of keys in the following passage :—



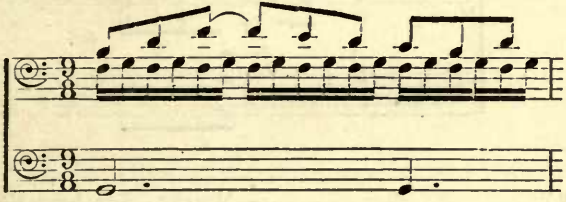
will not be altered by inversion, and the same pleasant effect *ought* to be produced from this :—



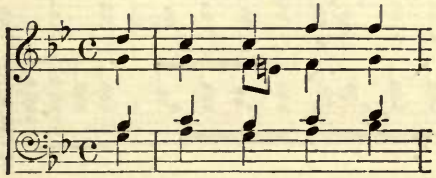
It is evident, therefore, that the cause of the unpleasantness of consecutive fifths, when they are unpleasant, must be sought elsewhere.

260. The following examples will show when they may be used with good effect:—

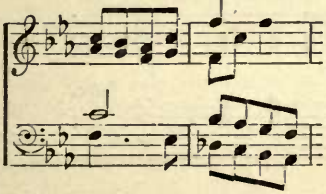
1. BEETHOVEN. Pianoforte Sonata. No. 1. Op. 29.



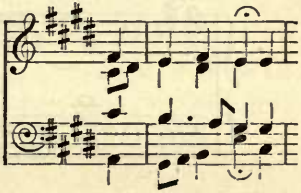
2. BACH. Motett. No. 2.



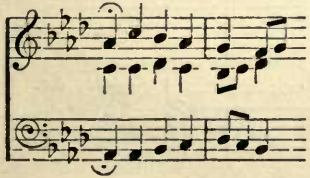
3. HANDEL. *Solomon.*
"Almighty Power."



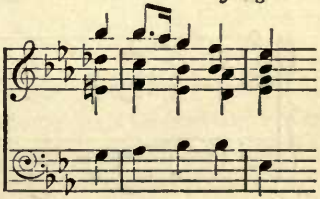
4. MENDELSSOHN. *St. Paul.*
"To God on high."



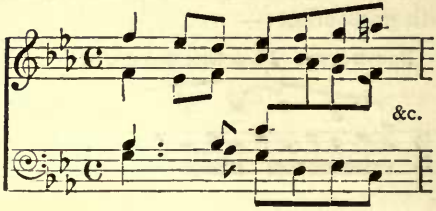
5. MENDELSSOHN. *St. Paul.*
"To Thee, O Lord."



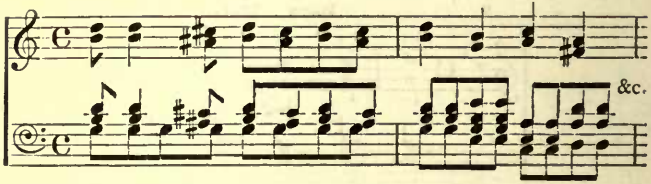
6. SPOHR. Introduction to Part II. of *The Last Judgment.*



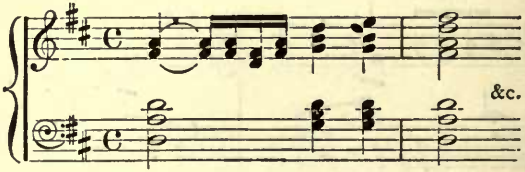
7. HAYDN. Symphony. No. 4.



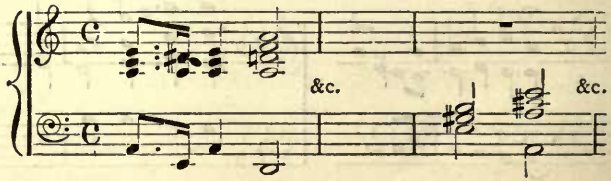
8. MOZART. Symphony, No. 4.



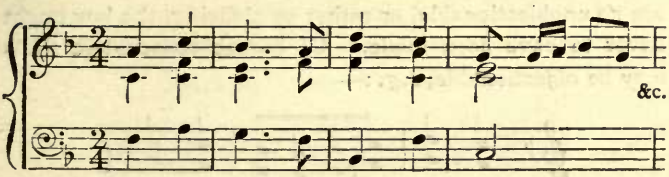
9. MENDELSSOHN. *St. Paul.* No. 16.



10. SCHUMANN. *Luck of Edenhall.*



11. BEETHOVEN. Pastoral Symphony.



261. It will be noticed that the foregoing consecutive fifths may be classed under the following heads:—

1. Between passing-notes. Exs. 1—5.

2. Between a succession of notes which, though part of a scale, are too essential to be called passing-notes. Ex. 6.

3. Between a tonic chord and that of its relative minor. Ex. 8.

4. Between a tonic chord and that of its subdominant. Ex. 9.

5. Between a tonic chord and that of its dominant. Exs. 7.

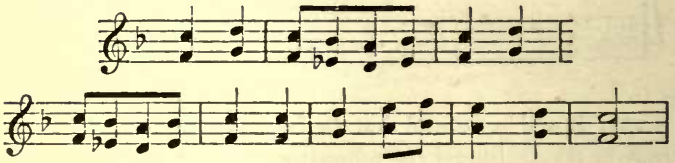
6. By contrary motion. Ex. 10. [11.

262. When two parts move in opposite directions, their motion is called contrary. When they proceed in the same direction, it is called similar. When one part remains stationary while the other moves, it is termed oblique motion.

263. In order not to multiply examples unnecessarily, none have been given of consecutive fifths between the harmonies in Classes 3 and 4 reversed, but they are not unusual.

It may be said that some of these progressions have found their way into the compositions through an oversight of the author. If it be so, the fact only proves that the ear does not always object to them.

No doubt some will call them "licences." If licences are so unobjectionable, or rather so pleasing, the law ought never to have been made. Of course consecutive fifths *may* be objectionable, *e.g.* :—

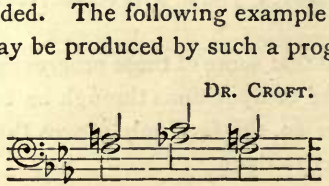


The use of them, even when they produce no bad result, should not be indulged in by the student of harmony too largely; as, unless desired for special effects, a smoother progression of the parts forming them may nearly always be found. To give an extreme case: If a number of successive common chords should each contain two parts moving in perfect fifths, it is evident that one of the two parts so moving has lost its power of forming a melody distinct from the one which it is following. It therefore comes under the same class of faults as consecutive octaves. (See § 258.)

FALSE RELATION.

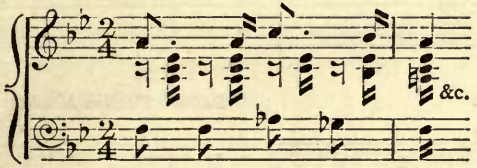
264. A "false relation" may be defined as "the separation of two notes of the chromatic scale caused by giving one to one part, and the other to another part." When one vocal or instrumental part has both notes in succession, the false relation is avoided. The following example shows the bad effect which may be produced by such a progression :—

DR. CROFT.



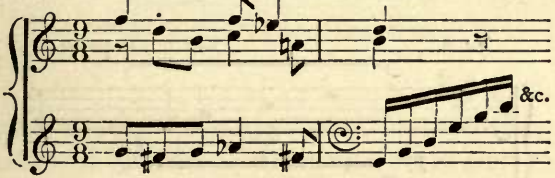
The author of the following has given us a false relation almost equal in harshness to that by the English church musician just quoted.

SCHUMANN. Song. "In der Fremde."

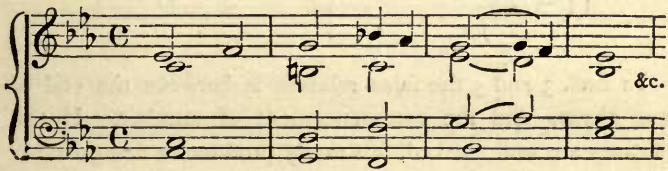


The student may safely imitate such examples of false relation as are given below:—

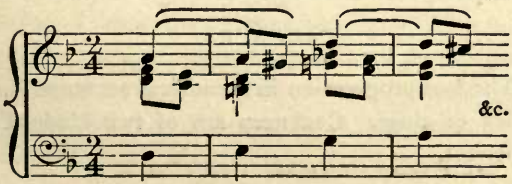
Ex. 1. BEETHOVEN. Pianoforte Sonata. No. 1. Op. 29.



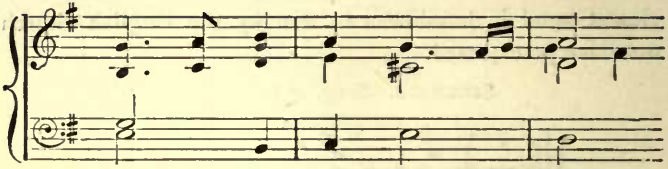
Ex. 2. WAGNER. *Tannhäuser.*



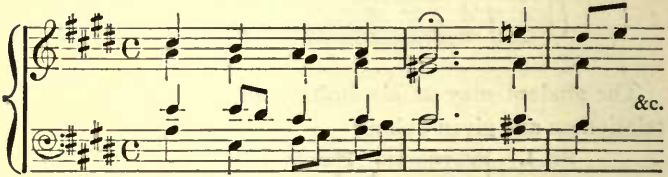
Ex. 3. MENDELSSOHN. *Variations serieuses.*



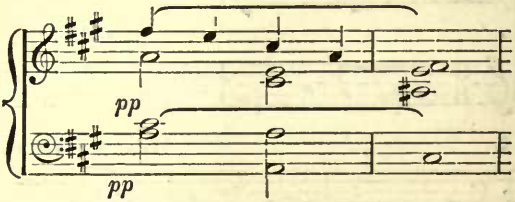
Ex. 4. HANDEL. *Solomon.* No. 20.



Ex. 5. BACH. *Passion Music.* No. 29.



Ex. 6. VERDI. *Requiem.*

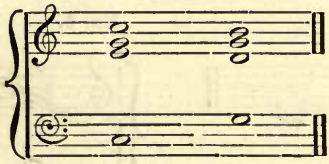


In Exs. 3 and 5 the false relation is between the end of one phrase and the commencement of another. If the phrases are well marked, this rarely produces a disagreeable effect.

CADENCES.

265. The last progression in a musical sentence is called a Cadence or close. Cadences are of two kinds, Perfect and Imperfect.

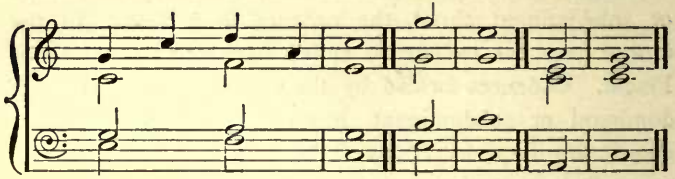
266. When the final tonic chord is preceded by a dominant or subdominant chord, the cadence is perfect. In the former case, the cadence is called Authentic; in the latter Plagal. Cadences formed by the use of any harmony, not dominant or subdominant, immediately before the final chord, are imperfect. By "the imperfect cadence" is generally meant that half-stop formed by a tonic chord, followed by that of its dominant, *e.g.* :—



This is also called the "half-close" in opposition to the perfect, or "full close." A cadence is sometimes unexpectedly delayed or interrupted, but inasmuch as the final progression, when it does occur, can be placed under the head of perfect or imperfect, it is wrong to call interrupted cadences a species of cadence.

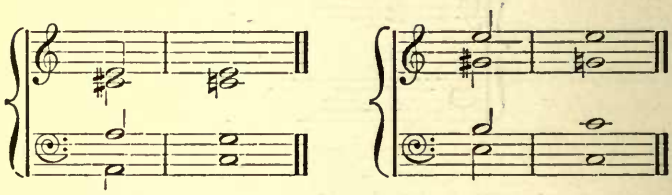
267. Imperfect cadences often consist of a tonic chord preceded by a relative chord. If the chords of the subdominant and dominant, which form part of a perfect cadence be omitted, the relative chords which are left for use are three, those of the relative minor of the subdominant, the relative minor of the dominant, and the relative minor of the tonic. (§ 223.) An example of a cadence formed by each of these chords is here given :—

Ex. 1. Ex. 2. Ex. 3.



268. The dominant chords of Exs. 1 and 3 are also used, *e.g* :—

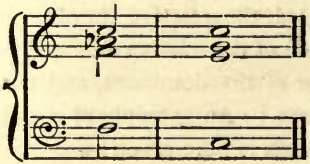
Ex. 4. Ex. 5.



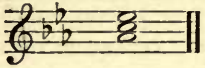
In Ex. 4 the final tonic chord is preceded by the dominant of the relative minor of the subdominant. In Ex. 5 the final tonic chord is preceded by the dominant of the relative minor of the tonic.

269. From the relative chords of the minor key cadences are used even for a close in a major key.

Ex. 6.

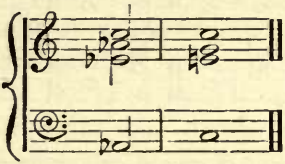


270. From the only remaining relative chord of the minor key—



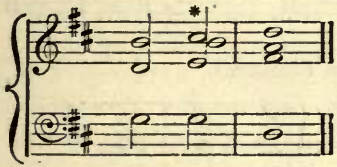
(§ 227) the following cadence is formed:—

Ex. 7.

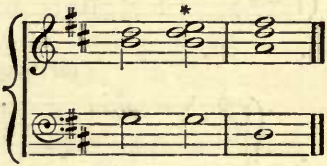


271. The following cadences are perfect cadences, because derived from the dominant of the key:—

Ex. 8.



Ex. 9.

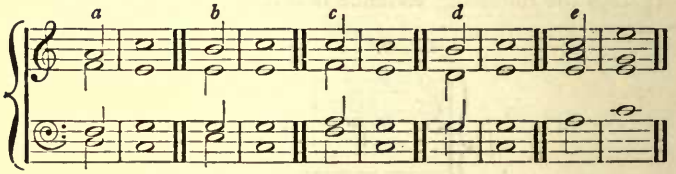


The chords marked * in Examples 8 and 9 are derived from A, the dominant of D, that in Ex. 8 being the third inversion of the chord of the major ninth (see § 99), that in Ex. 9 being the third inversion of the chord of the eleventh of A; the eleventh, though used as a sustained note, displacing the third. (See § 106.)

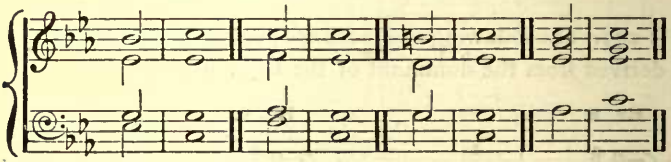
A cadence is said to be simple when it contains no suspension into the final tonic chord; and compound if there be such a suspension.

DIAGRAM OF SIMPLE CADENCES.

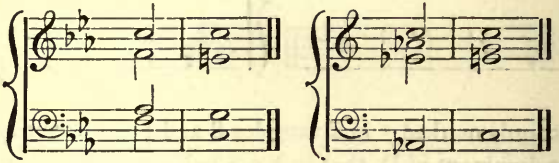
(FROM RELATIVE CHORDS OF THE MAJOR SCALE.)



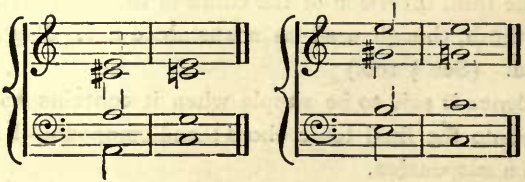
(FROM RELATIVE CHORDS OF THE MINOR SCALE.)



(OF MIXED TONALITY.)



(FROM DOMINANTS OF *a* AND *e*.)



CHAPTER XI.

PASSING-NOTES, SEQUENCES, &c.

272. Many combinations as well as progressions of sounds seem almost inexplicable until the three following facts are known:—1st, That the ear is so accustomed to the succession of the notes of the scale, that it will tolerate such a succession, even when the notes have little or no relation to the harmony with which they are heard; 2nd, that a series of harmonies occurring over successive notes of the scale, or over a regularly recurring phrase made up of scale notes, may contain combinations which would not be borne with, unless built on such a ground-work; 3rd, that a note may be sustained through a succession of chords, to which it is but slightly related, if only it start as a part of a recognised chord, and if it be eventually legitimately incorporated into the harmony. From the first of the laws arises the consideration of passing-notes; from the second, of the sequence; from the third, of the pedal-point.

273. Probably no word has been so much and so wrongly used by severe musical lawgivers as the word "passing-note." Whenever a combination of notes existed which ought not to have existed, in their judgment; if the unrecognised discordant note happened to be, as it often of course must have been, between successive degrees of a scale, this note was termed a passing-note, and the rest of the chord was taken into consideration without it. Thus it happens that even in some of the latest works on harmony, not a tithe of the chords really in use are catalogued; for, after a few supposed legal chords are announced ready for use, all other combinations (a vast array) are explained as containing

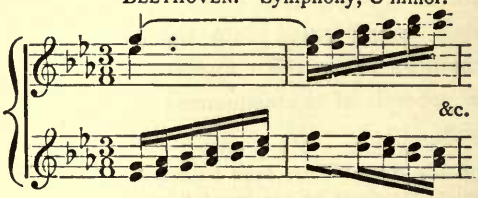
"passing-notes," or as licenses, whereas any combination of sounds may claim examination as a real chord; and, with regard to licenses, it may be stated once for all that in music there is no such thing as a licence; that which is pleasing, is right; that which is unpleasant, is wrong.

PASSING-NOTES.

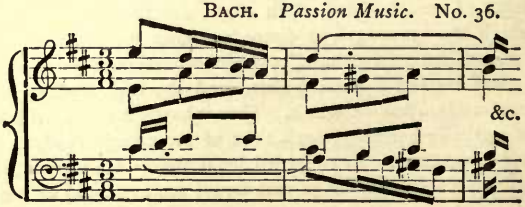
274. A "passing-note" may be defined as "a note, which, in consideration of its position in a series of scale-sounds, the ear will tolerate in combination with a chord to which it is not related."

This definition, if strictly adhered to, will be found not so widely applicable as that generally received. The series of chords built up of scale-thirds must of course have been searched through in vain, before any note can be pronounced to be unrelated to the chord in which it appears. It is also evident that in most cases the passing-note will be of shorter length than the combination with which it is heard, but this is not always the case.

BEETHOVEN. Symphony, C minor.

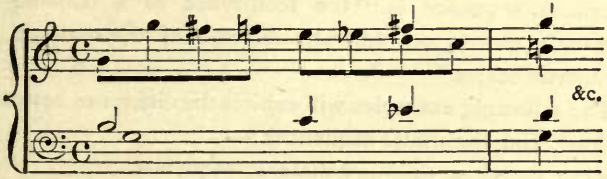


BACH. *Passion Music.* No. 36.



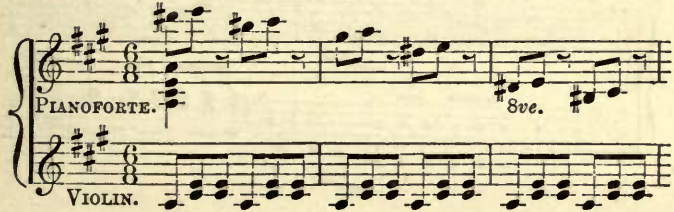
There are also chromatic passing-notes.

HAYDN. *Creation.* "Now vanish."



275. There is also a class of unessential notes which cannot rightly be called "passing" notes because a degree of the scale does not lie on each side of them. As is the case with passing-notes, they are most essential to melody, though unessential to the harmony. They are termed auxiliary notes.

BEETHOVEN. Sonata for Pianoforte and Violin. Op. 12. No. 2.



They often occur on the whole tone above or below the important note to which they are, as it were, attached, as well as on the semitone above or below. They may be defined as "notes not essential to the harmony, not introduced between two other degrees of a scale, and occurring generally on accented portions of the bar."

SEQUENCES.

276. A sequence is "the recurrence of a melodic or harmonic phrase on different degrees of the diatonic or chromatic scales."

The following examples will exhibit the difference between diatonic and chromatic sequences:—

Ex. 1 shows an ordinary diatonic sequence.

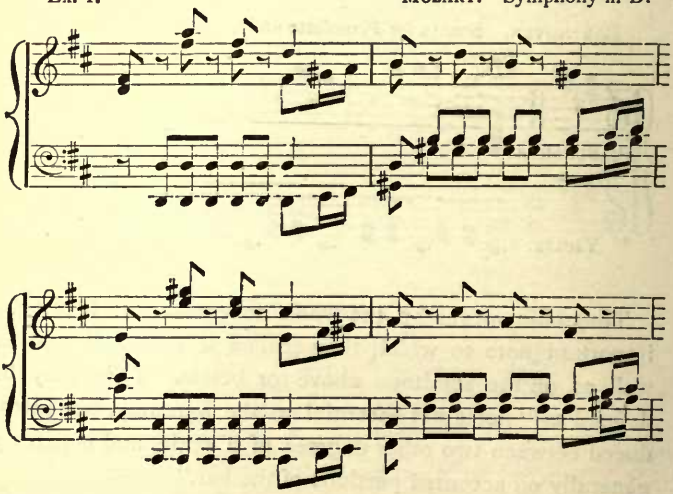
Ex. 2 shows an ordinary chromatic sequence.

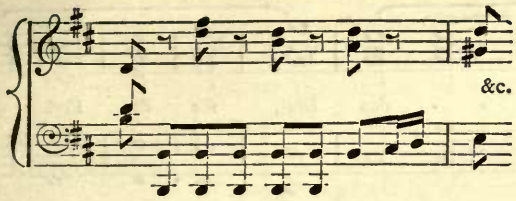
Ex. 3 gives a diatonic sequence which contains combinations accounted for in § 272.

Ex. 4 gives a sequence in which a short phrase is repeated a whole tone above.

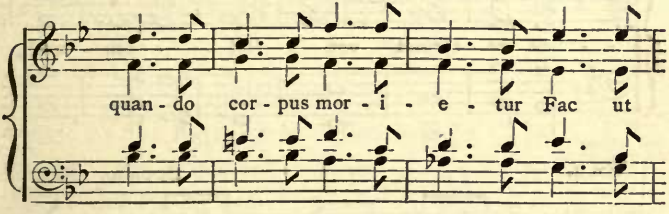
Ex. 5 gives a sequence in which a short phrase is repeated a semitone above.

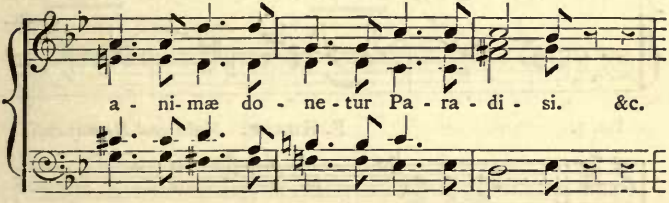
Ex. 1. MOZART. Symphony in D.



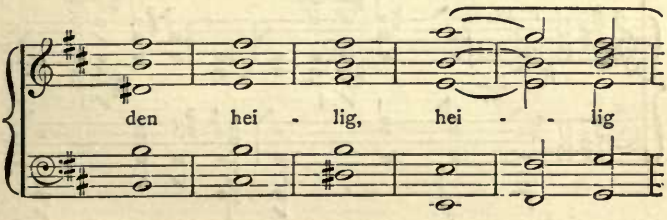


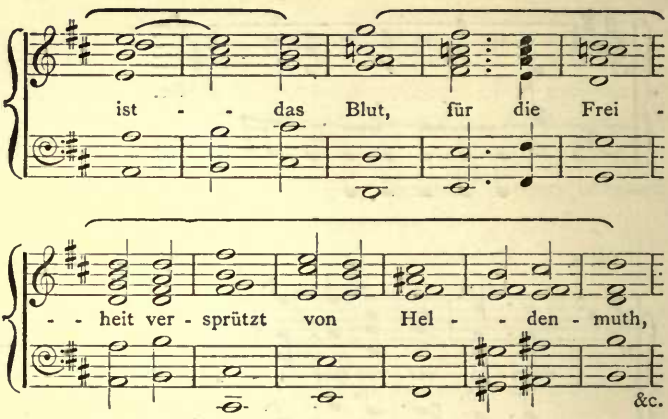
Ex. 2. ROSSINI. *Stabat Mater.*



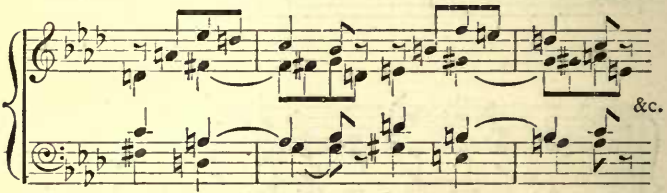


Ex. 3. SCHUMANN. *Paradise and the Peri.* No. 9.

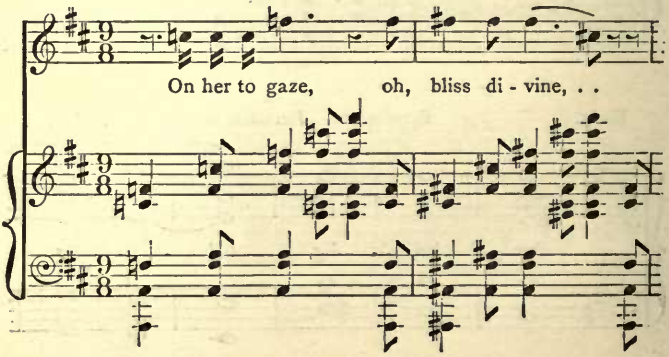


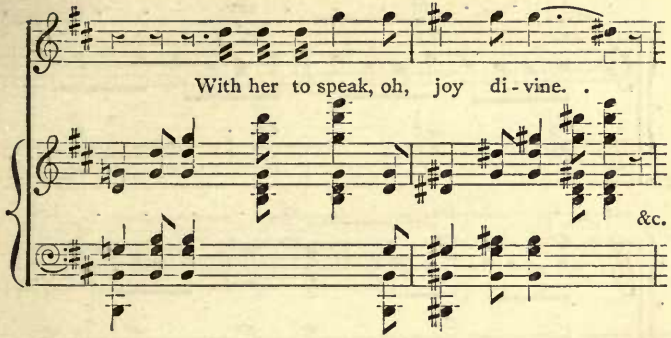


Ex. 4. GOUNOD. *Faust.*



Ex. 5. F. HILLER. *Nala and Damayanti.*

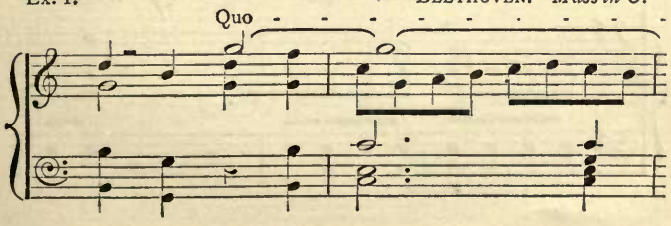


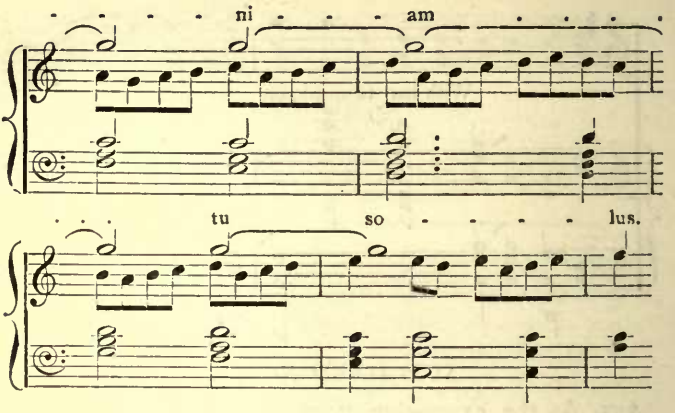


SUSTAINED NOTES.

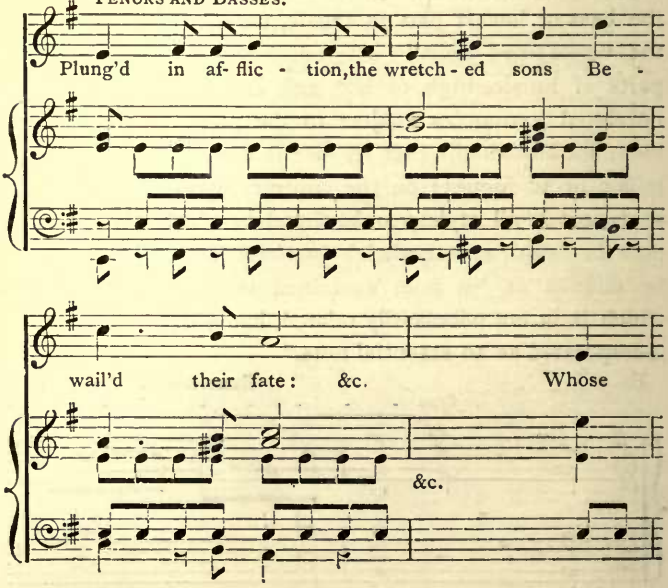
277. As the expression "pedal-point" leads many to suppose that it generally, if not always, is met with in the bass or lowest part in music, we will call it in future the "sustained note." The sustained note occurs in all parts of music, high or low, and can be carried through unrelated harmonies subject to the proviso in § 272. It must not be thought that its use is limited to contrapuntal music or to fugues; on the contrary, numberless musical sentences in all styles can be found in which the sustained note is heard, surrounded by various harmonies. It may be defined as "a note sustained through harmonies to which it is not necessarily related, but which is eventually incorporated as an essential note."

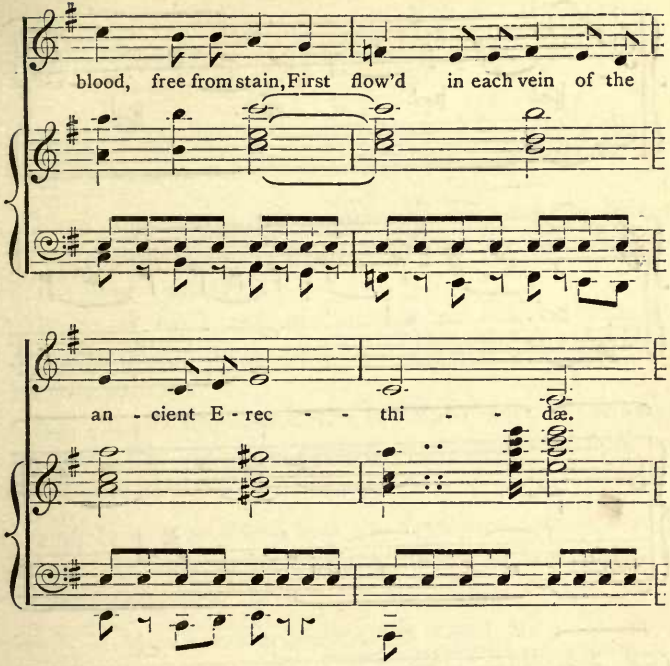
Ex. 1. BEETHOVEN. *Mass in C.*



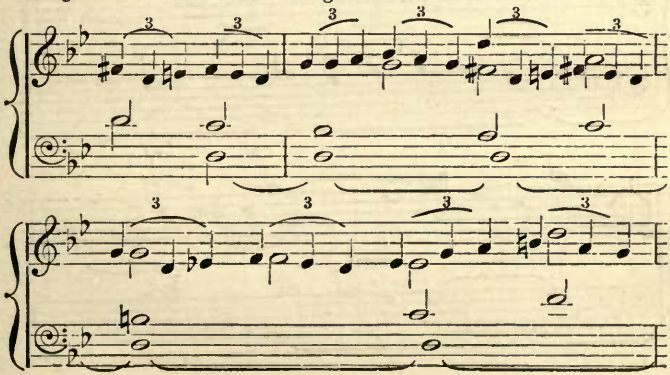


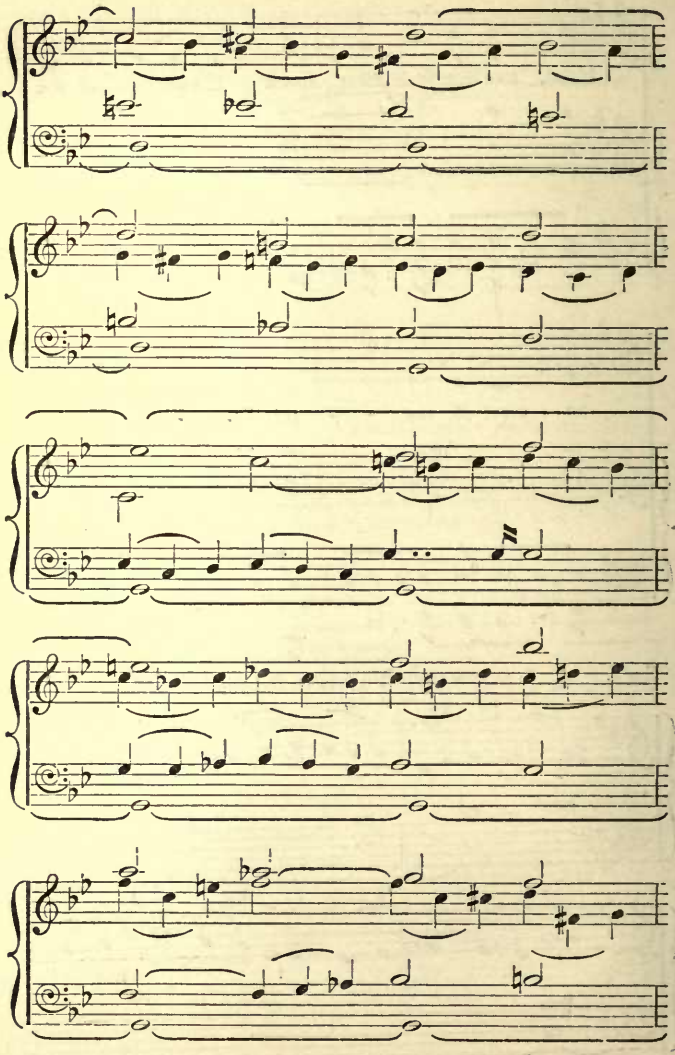
Ex. 2. MENDELSSOHN. *Antigone.* No. 5.

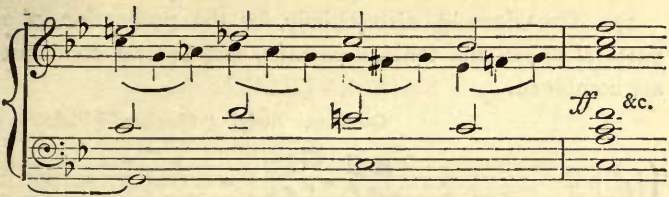




Ex. 3. SCHUMANN. Fugues on the word "Bach." No. 6.







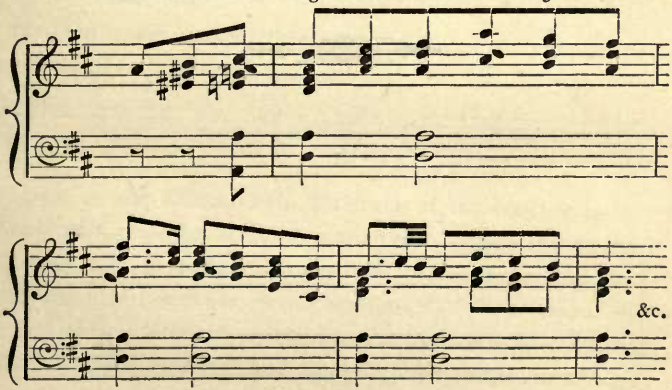
Ex. 1 of the preceding examples shows a sustained note in the soprano chorus part, incorporated into the harmony at the word " solus."

Ex. 2 shows a sustained note in an inner part of the accompaniment, the voices independently finishing their melodic phrase.

Ex. 3 shows two consecutive sustained notes in the bass, the first a fifth above the second; the second moving to a fifth below itself.

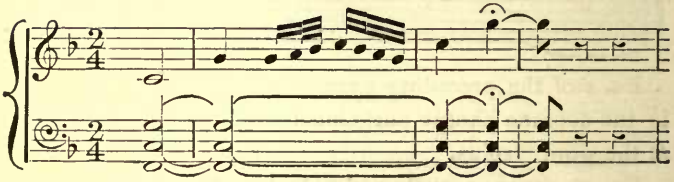
278. It will be found that the sustained note is nearly always the tonic or dominant. These two are frequently sustained together.

MENDELSSOHN. *Songs without Words.* No. 5. Book 6.



279. Occasionally, also, chiefly for the production of a pastoral effect, the tonic, dominant, and second dominant are combined.

GOUNOD. *Song.* "Shepherd's Plaint."



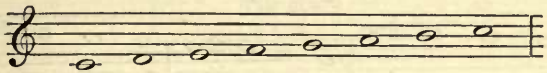
The student will find, by a careful study of the great masters, that the three laws which have now been illustrated explain various difficulties, and point out to him a wide field for the exercise of his musical invention.

CHAPTER XII.

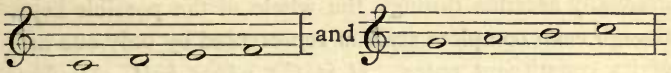
MODULATION.

280. One of the most marked differences between modern and ancient music is the constant variety of key in which musical phrases are now presented to us. The establishment of a new key is termed a modulation. The mere introduction of chords or progressions from unrelated keys does not constitute a modulation; a cadence of such sort as will determine the new key must be heard.

The theory enunciated in this work has been hitherto founded on the scale as in use; it will be well to turn to it again in the hope of finding from its construction some explanation of the laws of modulation.



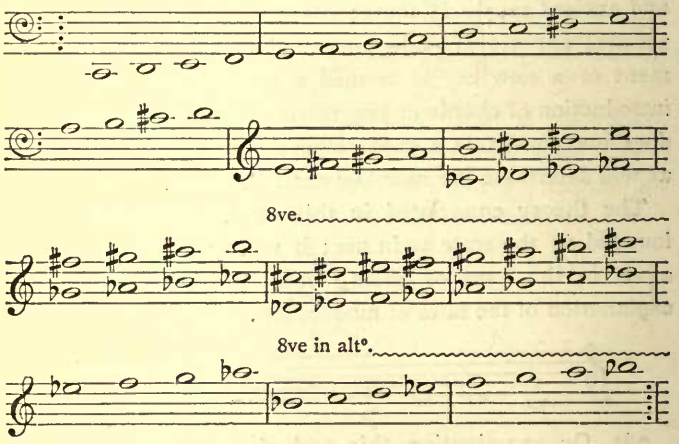
281. On examination, this scale is found to consist of two similarly constructed halves :—



Looking at the second half, the force of the leading-note, or subtonic, will be at once recognised. Such important authority has modern music given to this note that the second half of the scale is unquestionably the exponent of the key of C. Now, in examining the first half, which also contains a leading-note, and applying the same reasoning,

it is found that a change is taking place into the key of F, a fifth below C.

Thus the diatonic scale contains two leading-notes, one of which has a tendency to preserve the existing key, the other to lead out of it. The results of this truth are so important that it may be desirable to state it in a different form, thus :—

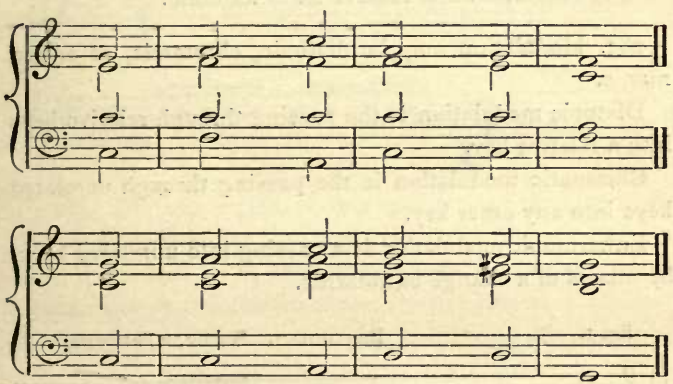


Drawing out a series of four notes as above, the scale gradually ascends through the whole of the possible keys, though each complete scale is represented by only one half of its constituent notes. *It is the upper half, therefore, which determines the key.* Thus the four lowest notes of the scale of G represent a cadence in the key of C. And similarly the four lowest notes of the C scale determine the key of F. If, then, a modulation is to be made into the key of the dominant, say from C into G, the *upper* half of the scale of G must be heard, namely, that which contains

an F♯. But F♯ is accompanied naturally enough by a chord of D, which is the dominant of G, hence the well-known maxim, that to complete a modulation, the key must be entered through its dominant.

The major scale, then, is provided with two leading-notes, one to keep music in the key, the other to lead out of it.

And therefore, if it be wished to modulate out of a scale without making use of notes foreign to that scale, the key of the fifth below is that most easily reached; because, in this case, a perfect key-determining cadence may be made by which to modulate into the fifth below, whereas new material is required to form a similar cadence into the key of the fifth above, *e.g.* :—



In the above examples a modulation into the key of the fifth below is shown, without the introduction of notes foreign to the original key; and next, a similar modulation into the key of the fifth above, in which it is necessary to introduce a new note—F♯.

282. An explanation can now be given of the fact that discords are more common on a dominant than any other ground-note. It is this: if it be required to keep in any key, the leading-note must be heard, but the leading-note is ordinarily accompanied by the dominant, therefore discords added to the dominant and leading-note have a tendency to remain in the key of their tonic. Their non-disturbance of the key fully accounts for their frequent use, and this quality they gain from their association with the leading-note and its accompaniment, the dominant.

The well-known statement that ground-notes or roots have a tendency to fall a fifth is now self-evident, it being known that discords most frequently occur on a dominant, and, of course, tend to resolve on to its tonic.

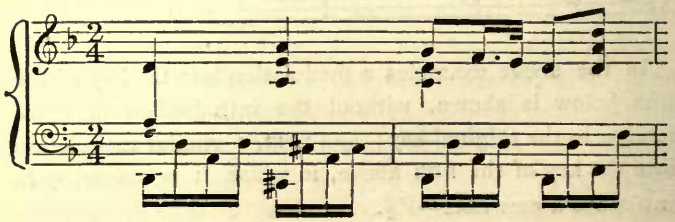
283. Modulation may be diatonic, chromatic, or enharmonic.

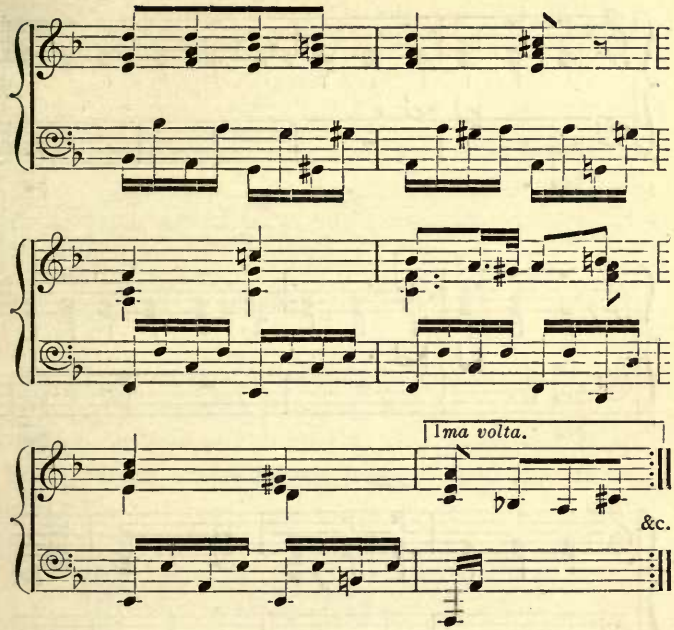
Diatonic modulation is the passing through relative keys into a relative key.

Chromatic modulation is the passing through unrelated keys into any other key.

Enharmonic modulation is a passing into unrelated keys, by means of a change of notation.

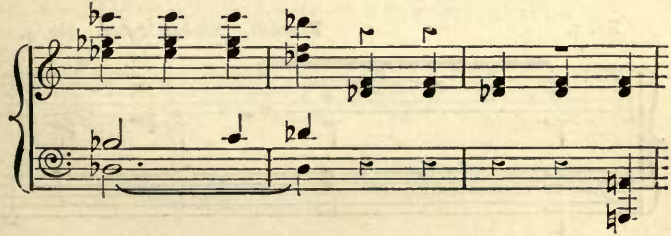
Ex. 1. BEETHOVEN. Sonata, "Pastorale."

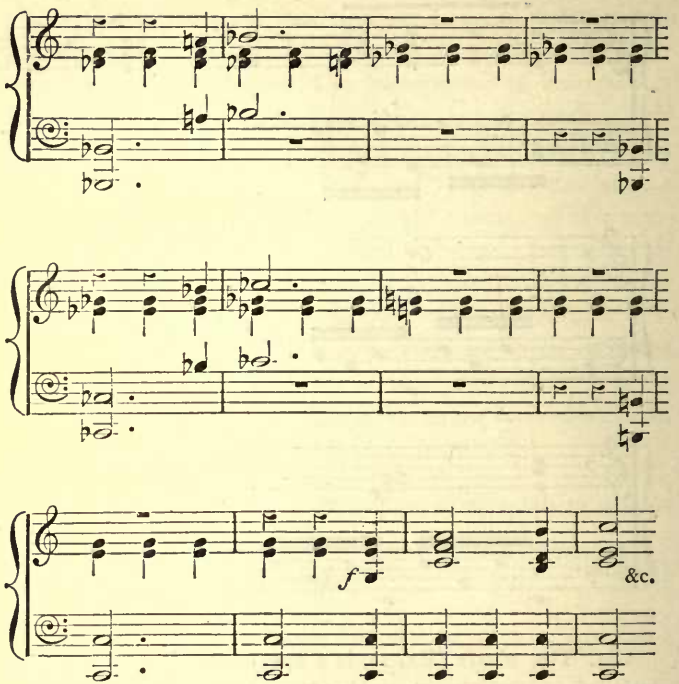




284. The above (Ex. 1), is a specimen of diatonic modulation from D minor into the key of the relative minor of the dominant of F, the progressions having in passing gone through the dominant and relative major.

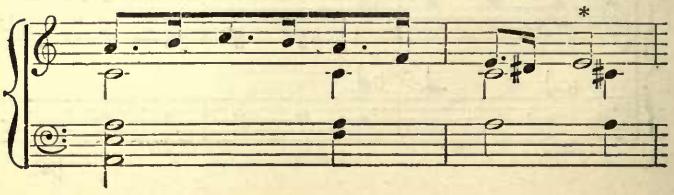
Ex. 2. BEETHOVEN. Symphony, No. 1.

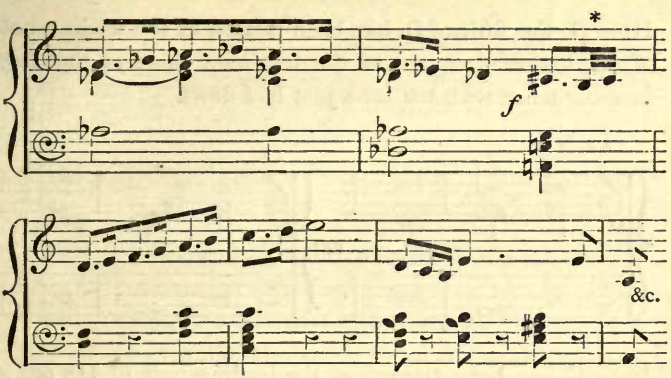




285. The above (Ex. 2) is a chromatic modulation from the key of D♭ into that of C.

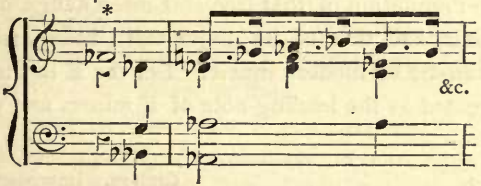
Ex. 3. ROSSINI. *Stabat Mater.* No. 4.





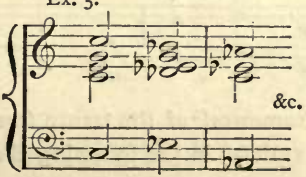
286. The above (Ex. 3) contains an enharmonic modulation from the key of A minor to the key of D♭, and *vice versâ*, by substituting D♭ for C♯, after a doubtful chord, * Ex. 3, which suggests, but does not fully express the chord, * Ex. 4.

Ex. 4.



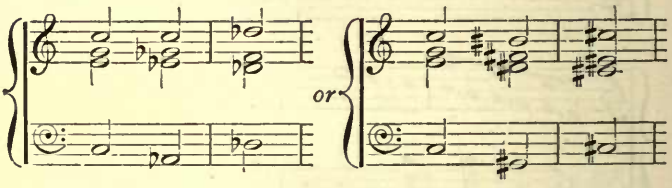
287. It is evident, that in order to obtain a rapid modulation, it is only necessary to make any one note of the final tonic chord into a leading-note of a new key, thus:—

Ex. 5.



Here G, the fifth of C, has been treated as the leading-note of A♭, and made a part of the dominant chord of that key, in accordance with the laws just laid down

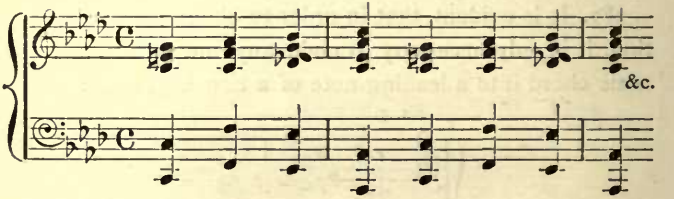
Ex. 6.



Here C has been treated as the leading-note of D♭ or C♯ and made part of the dominant chord of those keys.

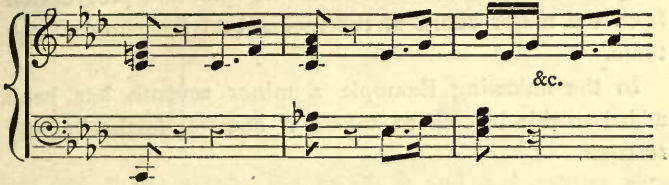
Something has already been said of the E as a leading-note (§ 281), but it is worth while to notice that the use of the major third of the tonic as the leading-note of the relative minor of the key of the major third below has probably laid the foundation of that frequent interchange of the key of a tonic, and that of its major third below, which is so characteristic of modern music. Let the E in the chord of C be treated as the leading-note of F minor, and the result will be:—

Ex. 7. CHOPIN. Impromptu in A♭.



which is the framework of the return from the key of C to A♭ (minor for variety) in the following Example (8):—

Ex. 8. BEETHOVEN. Symphony, C minor.



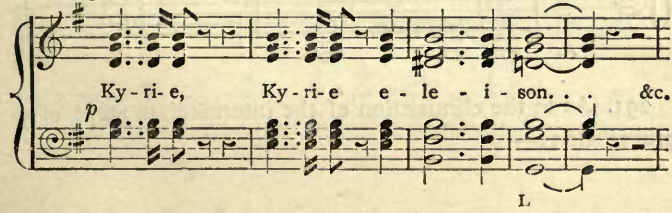
288. A passing into the dominant of the relative minor and back again is the chief ingredient of many of the ballads which are greedily devoured by the public. A modulation into the relative minor of the dominant is quite as common.

289. A slight acquaintance with the history of musical progressions is sufficient to show that two tendencies, apparently, but not in reality, opposed to each other, are exhibited in their successive changes.

The first is, that when a progression has by usage become established—authors carry it one step further, say, by introducing a chord derived from a ground-note a fifth higher, or a key with more sharps or flats.

The second is, that when a progression has by usage become established, the intermediate steps are often omitted, thereby giving an air of freshness and originality to the musical sentence. It is impossible to allow space in this short work for a full treatment of so large a subject; one illustration of each must suffice.

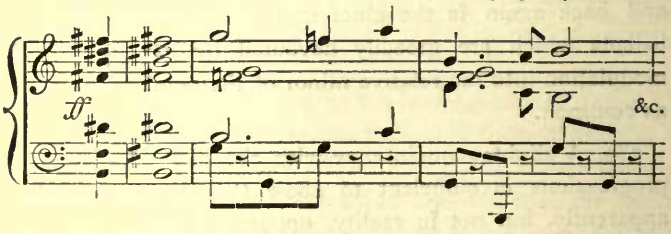
Ex. 9. GOUNOD. *Messe Solennelle.*



290. In the above is shown the now familiar progression from the major chord of the mediant to the chord of the tonic.

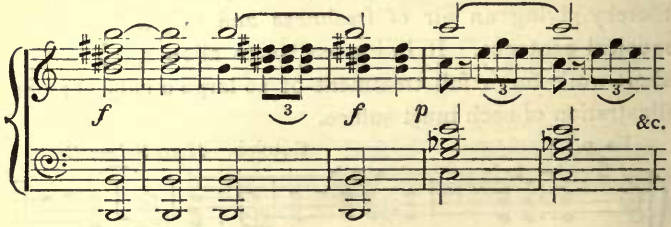
In the following Example a minor seventh has been added to this last chord, taking it one step further in key-relation.

Ex. 10. SCHUBERT. Symphony in C.



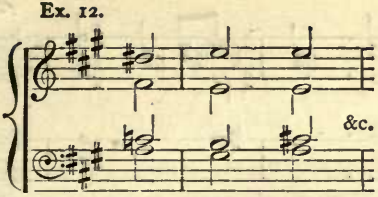
In the Example next following, not only has the chord of C been introduced which was suggested by the F♮ in the final chord of the preceding, but on the introduction of the chord of C a B♭ has been added, thus pushing it one step further in its key-relation (*See* Ex. 11).

Ex. 11. SCHUBERT. Symphony in C.



291. As to the elimination of the intermediate steps of a progression :—

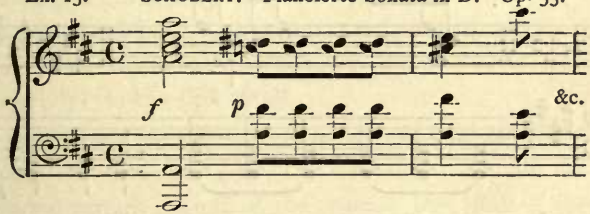
Ex. 12.



we see in the above, Ex. 12, B, E, and A following each other in succession as ground-notes (*See* § 282).

Below is given the progression without the chord derived from E :—

Ex. 13. SCHUBERT. Pianoforte Sonata in D. Op. 53.

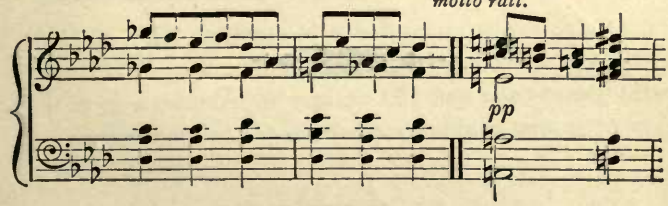


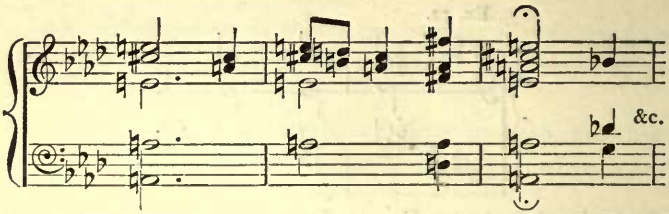
This progression is of common occurrence under various phases of notation.

292. We have before spoken of the close relation of the dominant of the relative minor to the tonic key. The elliptical progression from it to the tonic may be seen in Ex. 9.

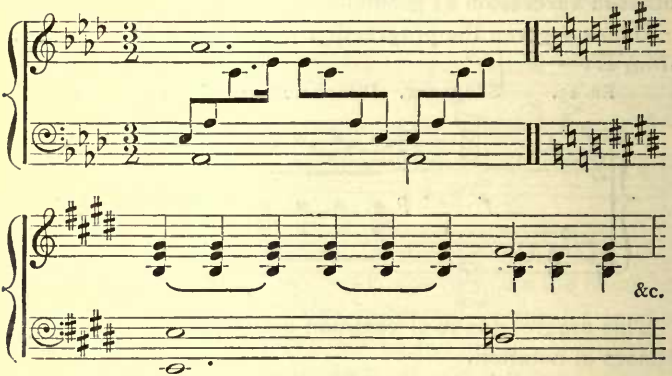
293. The ordinary antithesis of a key to that of its major third below, sometimes appears more complicated than it really is, owing to the necessity for an alteration of notation :—

Ex. 14. CHOPIN. *Mazurka.*





Ex. 15. SCHUMANN. *Song*, "Widmung."



The advanced student will find the analysis of the steps which in reality lie between many fine progressions, and which are unconsciously supplied by the mind, a study as interesting as useful.

CONCLUSION.

A summary of the whole theory may not be useless. The following are the facts used for its ground-work :—

294. That the succession of sounds called the scale is conventional. It can be proved that it has varied from time to time during the progress of the art of music, and there is a probability that it will in future time be changed in its character. The ingenious efforts of scientific men to divide the octave into more than twelve parts will, possibly, lead to this result.

295. That at any given period in the history of the practice of music, chords have been made up by combining certain sounds of the scale at that time in use.

296. That any theory of harmony must, if true, be built upon the scale as in use at the time it is written.

297. That the third is the most harmonious interval, and that chords are combinations of thirds, and as such can be systematically arranged and catalogued.

298. That inasmuch as chords are a combination of sounds of a scale, every chord must be in a key, or at most, in two closely allied keys.

299. That the note of a key-scale on which a chord is built is its ground-note, and that by the word ground-note it is only intended to express this key-relationship between a certain note and those notes combined with it in various ways.

300. That relative chords are the common chords which

can be made out of the diatonic scale, and relative keys the scales which they represent.

301. That the succession of chords is much influenced by this relation of key.

302. That the primary law of modulation derives its force from the fact that there are two leading-notes in the scale, one to each tetrachord; that the leading-note of the lower tetrachord is capable of leading into the key of the fifth below; that the leading-note of the upper tetrachord retains progressions in the key; and, by analogy, a new leading-note has to be formed for transition into other keys.

303. That there is no reason for calling one discord more "fundamental" than another, and therefore, no reason for separating certain discords from their proper place in the catalogue of the chords and treating them separately under various names.

304. That the term suspension is only legitimately applied to the sustaining of sounds of one chord into another belonging to a distinct scale-series.

305. That the art is perpetually striving to reach beyond the "conventional;" and in consequence of this, that new combinations, at first considered illegitimate, are being from time to time recognised. That there are no fixed laws, and, consequently, no "license" to break them.

306. That inasmuch as music is ordinarily in four parts, only four sounds of those which form the higher numerical discords are, as a rule, heard together. That the power of selection thus left in the hands of composers affords an

almost infinite variety of treatment of chords; while, on the other hand, the fact that only a few of a graduated series of scale-sounds are used simultaneously is no argument whatever against their connection with that series.

307. That in the framing of chords containing discords, one general rule largely influences their form; namely, every discord has a tendency to eject the note immediately below itself; for example, when a ninth appears in an inverted chord the ground-note disappears; when an eleventh appears, the third disappears; when a thirteenth appears, the fifth disappears.

308. That such discords only need preparation as are novelties to the hearers; and indeed, as a proof that the supposed necessity for the preparation of known discords has no foundation in fact, it need only be pointed out that musicians now listen to the sudden percussion of combinations of sounds which would have shocked their forefathers. It may also be reasonably expected that posterity will be habituated to chords which would now shock the ear of the most educated and liberal critic. Such considerations are far from useless; for by a careful analysis of the compositions of great masters, the student will readily discover in what direction he must look for new paths. A historical study of music will show him that only concords, or rather, what were considered concords on supposed mathematical principles, were at first admitted into use. Next, though not without great opposition, and limited by severe legislation, that tonic and a few dominant discords were admitted under the name of suspensions; then, that the great masters, having exhausted these in passing under the contra-

puntal yoke, sought for variety by the introduction of a larger number of dominant discords, treated at first with all the reverence due to the earlier discords, but afterwards, on account of their peculiar softness, used with less compunction. Nearer our own times he will trace the manner in which dominant discords completely usurped tonic; and, lastly, by a conscientious criticism of those writers whose works are characterised by vigour and freshness, he will mark how a yearning after new effects has led them once more to reinstate tonic discords into their proper place, though neglecting the prejudices which formerly hindered their free treatment. The young composer who can thus map out before him his predecessors' material and how they used it, will be able to choose his own path. If he wishes to compose for the mart, a slightly manipulated reproduction of that refined use of dominant discords which has enervated a large amount of musical literature will be his most profitable employment. But, if he compose for the love of art, he will, after a thorough acquaintance with the best works of great masters, commencing with the ageless giants, Palestrina, Bach, and Handel, and ending with Wagner, search carefully for the new path, and strive after progress.

309. It cannot be denied that melody is more limited in expansion than harmony. Of course to a certain extent, this must be the case, inasmuch as harmony commands the almost unlimited *combinations* of sounds, while melody is restricted to the *permutations* of so many notes as are considered a convenient compass for a voice or instrument. Other limitations surround melody, amongst them notably rhythm. But such considerations should be a great incentive

to the study of free harmony, inasmuch as a melody, simple or even commonplace, when taken by itself, may be so supported and surrounded by beautiful harmonies, as to appear a richly-set jewel. It is also worth remarking that there is heard by the educated musician when listening to fine successions of chords, a melody none the less real because difficult to describe, which leaps as it were from chord to chord, and imparts a much higher pleasure than is obtained from the contemplation of that bare outline called the "tune."

But be it understood that harmony is to be used for the purpose of beautifying melody, not of superseding it; and after an unfettered study of chords and progressions, the student will find himself quite as able to appreciate and love a melody as when in his uneducated state the melody was the only part which appealed to his ear.

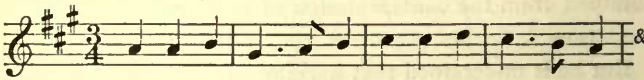
When the interesting study of harmony has been thoroughly traversed, and the student finds in music a rich source of intellectual pleasure, even then he stands but on the threshold of the art. Out of the many subjects still to be explored, which he will find lying before him, that of "Form" is the most important, including under it, as it does, melody itself, and it is to be regretted that he will look in vain for any trustworthy guide to direct his steps through its wondrous complications.

END.

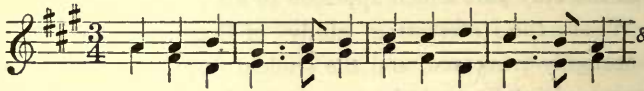
APPENDIX.

SUGGESTIONS FOR WRITING MUSIC.

When one part only is written on a stave, it is usual to turn the tails of notes below the middle line upwards; of those above the middle line downwards. Notes on the middle line may have their tails up or down according to circumstances, *e.g.*:—

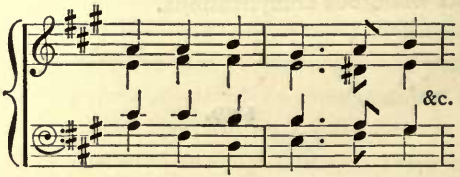


When two parts are written on one stave, the tails of the notes belonging to the upper part are all turned up; those belonging to the lower part, down. When both parts have one note, that note has two tails, one turned up on the right hand, the other turned down on the left, *e.g.*:—



When two parts have one note which is a semibreve, it is formed by interlacing two semibreves thus .

When writing for four parts in short score the treble and the alto are written on the upper stave; the tenor and bass on the lower; the tails of the treble and tenor being turned upwards; those of the alto and bass downwards, *e.g.*:—

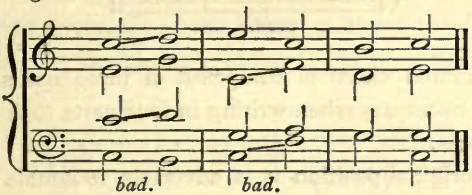


In copying out exercises for the purpose of filling them up

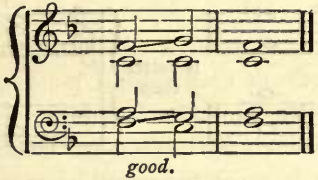
in short score, the tails of the bass part should be all turned down, and those of the treble, if there be one, should be turned upwards.

SUGGESTIONS FOR HARMONIZING THE EXERCISES.

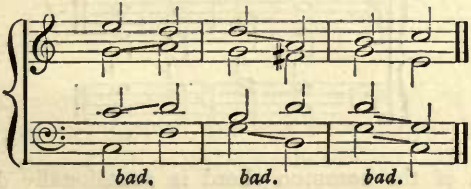
Consecutive octaves and consecutive fifths must be avoided, *e. g.*:—



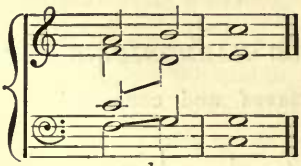
Octaves are not considered consecutive unless they occur between the same parts; thus, there is no fault in the following:—



By consecutive fifths are meant consecutive major fifths. (A major fifth followed by a minor fifth, or *vice versâ*, is not a forbidden progression, although it is not considered good between extreme parts, that is, between the treble and bass.)

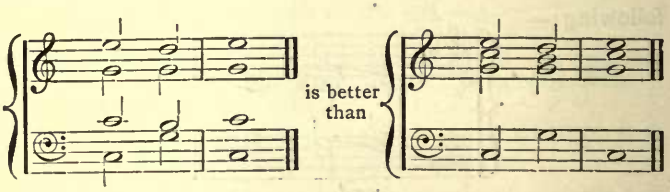


Fifths are not considered consecutive unless they occur between the same parts, *e. g.*:—

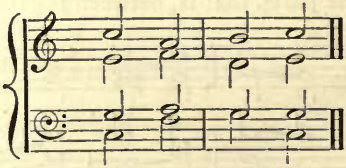


As a common chord is composed of three notes only, it becomes necessary when writing in four parts to double one of the notes.

In its original position it is advisable to double the bass note, and in all cases it is better to use dispersed than close harmony, *e. g.*:—

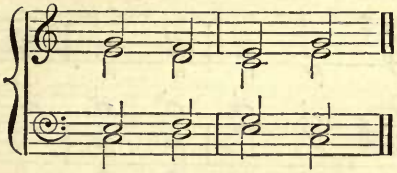


The fifth of the common chord may be omitted, but not the third; and there is no objection to two parts taking the same note, *e. g.*:—

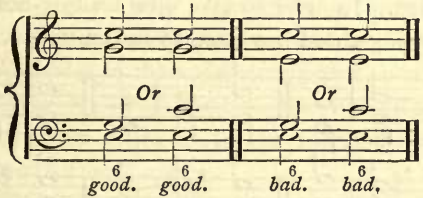


The fifth of the common chord is occasionally doubled;

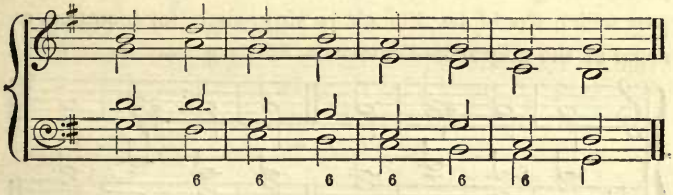
the third not often. The latter generally occurs when the parts proceed by contrary motion.



In the first inversion of the common chord the bass note should not be doubled, but either the third or sixth may be doubled, *e.g.*:—

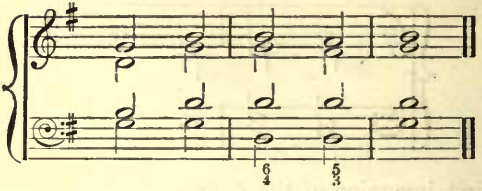


In writing a succession of sixths it will be found best to place the interval of the sixth in the upper part; of the other two parts one can take the interval of a third throughout, and the other the interval of a third and sixth alternately in order to avoid consecutive octaves or fifths, *e.g.*:—

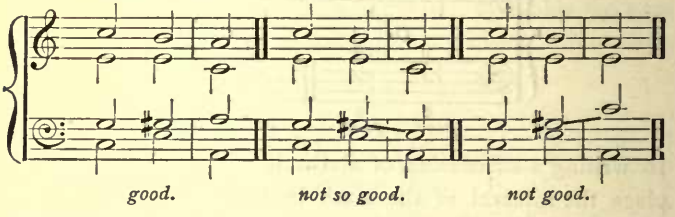


In the second inversion of the common chord the bass note is nearly always doubled, and it is most commonly followed by a common chord on the same bass note. When this is

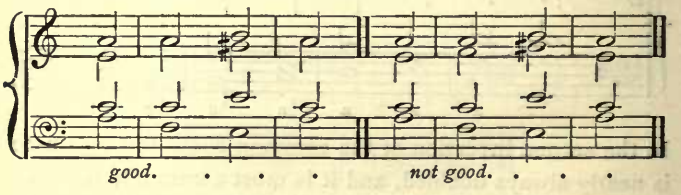
the case the 6 proceeds to 5, and the 4 proceeds to 3, while the bass note remains doubled, *e.g.*:—



It is usual to make a leading-note ascend to its tonic, and notes which are raised by a ♯, a ×, or a ♮ are *very frequently* leading-notes. In order to take up a leading-note, the fifth of the following chord has often to be omitted, *e. g.*:—

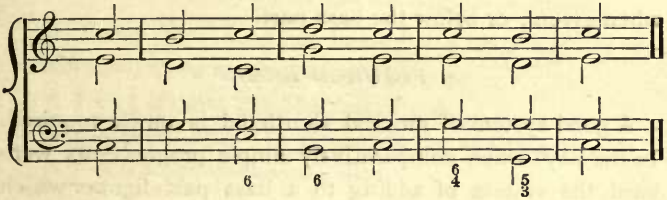


In consequence of the fixed progression of the leading-note, two parts should not take it at once. In commencing four-part writing the student should not give intervals to any part which would be difficult to sing, such, for instance, as some of the augmented intervals, &c., *e.g.*:—



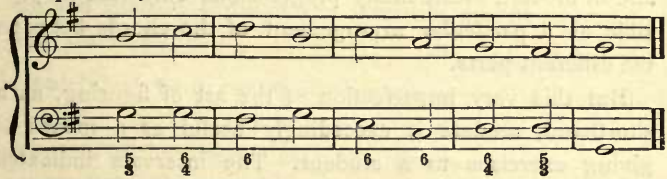
The student need not at first attempt to give any variety to

the inner parts ; his only effort should be to make what he writes correct and smooth. He should not hesitate to repeat a note frequently in one part in his first attempts at harmony, *e.g.*:—

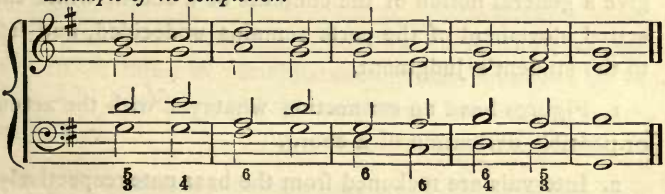


When a treble is given with a figured bass, the student will observe that some of the intervals marked by figures below the bass note appear in the added treble part, in which case they need not be doubled, unless for the sake of complying with the rules above given as to the doubling of the component notes of a chord, *e.g.*:—

Specimen of Exercise.



Example of its completion.



The student can now proceed to fill up in their order the exercises on the common chord. When adding a treble

part when only a bass is given, he must be careful not to let his treble part approach so close to the bass as to cramp his harmony, or to move so far from it as to make it too extended. No notes must be added above the treble part, when given; or below the bass part.

FIGURED BASS.

A good system of musical shorthand is much required. In the days when comparatively simple progressions were used, the system of adding to a bass part figures which should indicate the intervals contained in the accompanying harmonies, answered all general purposes. But the complications of modern music become still more complicated to the eye when an attempt is made to write them down in figures, because the figure can only, as a rule, show the interval to be used, not the part which is to have it, and in modern music many progressions only become possible as a particular arrangement of the chords between the different parts.

But this very imperfection of the art of figuring, as a shorthand, renders it exceedingly useful as a means of giving exercises to a student. The intervals indicated give a general notion of the contents of a chord, while the actual movement of the parts remains undecided, and left to the student's judgment.

1. Figures have no connection whatever with the actual or possible derivation of a chord.

2. Intervals are reckoned from the bass note respectively.

3. The highest number is placed uppermost; the next high number below it, and so on.

4. Compound Intervals are considered Simple, with the exception of those resolving on to an 8 or octave.

5. Every bass note without figures is to be harmonised with its own common chord in its original position.

6. Every bass note not having a 4 or 2 against it, is understood to be accompanied with a 3.

A $\frac{4}{2}$ or $\frac{4}{3}$ implies the addition of a 6.

A 4 followed by a 3 (4 3) implies the addition of a 5.

A 7 or 9 alone implies a $\frac{5}{3}$ also.

7. An accidental, standing by itself under a bass note, implies the alteration of the third of the chord.

8. A stroke through a number indicates that the interval is to be raised, *e.g.*—6; but accidentals may be placed by the side of the figures instead. Thus: ♯6.

9. Where the numbers have no accidentals attached, or are not crossed through, the intervals are in accordance with the signature.

10. In a chord containing an augmented or diminished interval, two accidentals are sometimes given, although one note of the interval may not require alteration on account of the signature.

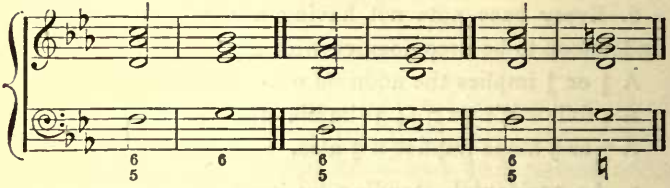
11. Lines —— ═══ ≡≡≡ signify that the previous intervals are to be retained notwithstanding the movement of the bass part, but they need not necessarily be retained by the same part.

12. The accompaniments may move during a bass note, if no intervals are introduced which are not authorised by the figuring.

13. When more than one chord occurs on the same bass note, common chords must be figured.

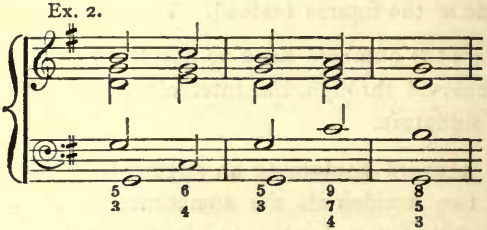
The following thirteen examples are given as illustrations of the scope of the above rules:—

Ex. 1.



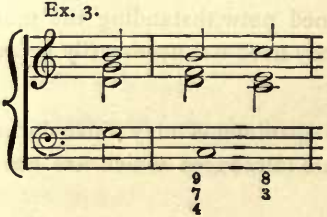
Of the chords figured $\frac{6}{5}$ in this example, the ground-note of the first is B♭, of the second B♭, of the third G. The first is a chord of the ninth, the second a chord of the seventh, the third a chord of the eleventh.

Ex. 2.



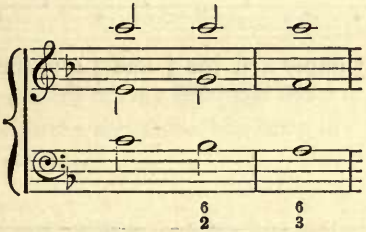
Although the chords move over a sustained note, the numbers are reckoned from that note, not from the bass of the moving chords.

Ex. 3.



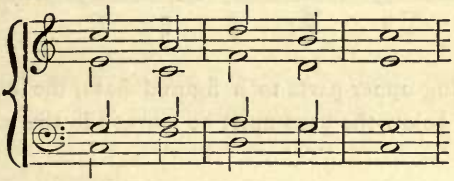
The figure 9 is placed uppermost, because a larger number than 7, although in the harmony the seventh is heard above the ninth.

Ex. 4.



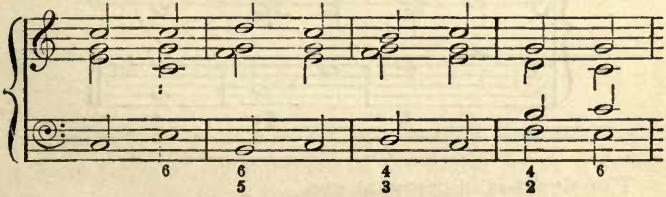
The number does not limit the use of the interval to any special pitch.

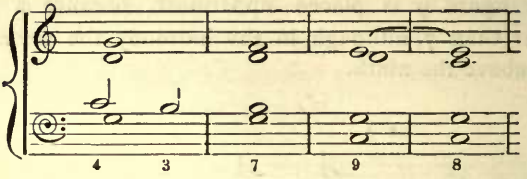
Ex. 5.



No figures are required here.

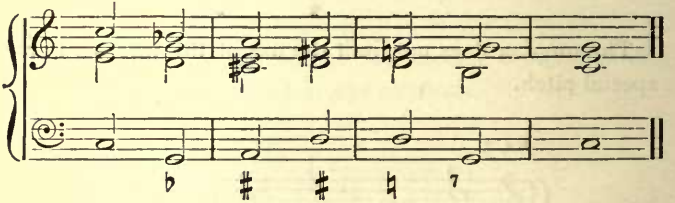
Ex. 6.





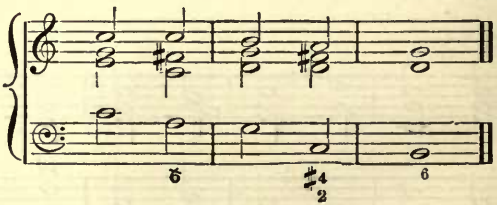
The 6 and $\frac{6}{5}$ imply a 3, the $\frac{4}{3}$ and $\frac{4}{2}$ a 6, the 4 3 a 5, the 7 and 9, $\frac{5}{3}$.

No. 7.



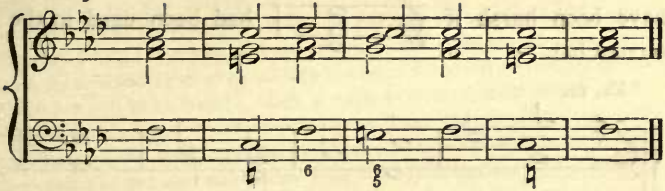
In adding upper parts to a figured bass, the accidentals indicated below the bass must be marked in the harmony.

Ex. 8.



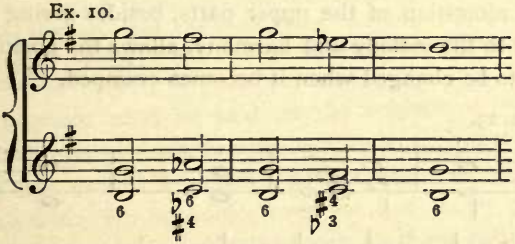
The sign ♯ is in common use.

Ex. 9.



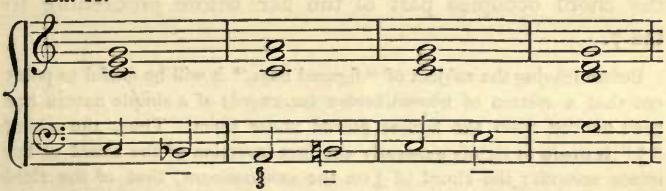
In the third chord of this Example the 6 and 3 are flat, in accordance with the signature, similarly the 5 in the $\frac{6}{5}$, and the 3 in the unfigured chords.

Ex. 10.

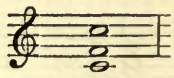


Although the F in this Example is sharp by the signature, yet the sharp fourths are marked in the figuring, one being part of an augmented interval, the other of a diminished interval.

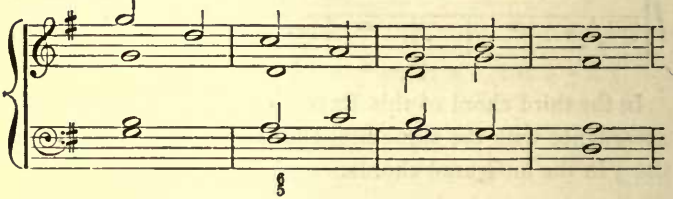
Ex. 11.



The harmonies thus added to a moving bass sometimes require a special arrangement of the parts, so as to adapt them smoothly to the unaccented bass. Thus, it would

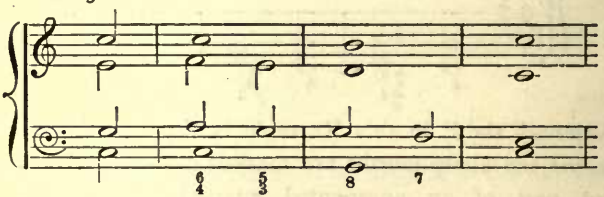
have been harsh if  had been used in the second bar.

Ex. 12.



This alteration of the upper parts, besides giving more interest to the melody and harmony, allows the position o chords to be changed when it becomes cramped.

Ex. 13.



The $\frac{5}{3}$ has been thus figured because $\frac{6}{4}$ is on the same bass note. The 8 precedes the 7 to show that that note in the chord occupies part of the bar before proceeding to the 7.

Before leaving the subject of "figured bass," it will be useful to point out that a system of nomenclature for chords of a simple nature has been derived from the figures placed under them. Thus, the chord "$\frac{6}{5}$" is made to signify generally the first inversion of the chord of the minor seventh; the chord of $\frac{6}{5}$ on the subdominant, that of the third inversion of the chord of the dominant eleventh; the chord of $\frac{6}{5}$ on the supertonic, that of the second inversion of the chord of the major ninth of the dominant; the chord of 7 on the leading-note, that of the first inversion of the major ninth; the triad of the leading-note, the first

inversion of the chord of the minor seventh, without the ground-note. The faults of this system are obvious; for before a chord can be described, first, the numerical value of the component intervals has to be found; next the relation of the lowest note of the chord to a given scale determined; but when all this has been done, the *derivation* of the chord has still to be found. Such a system is absolutely useless, if the context does not supply ample proof as to what degree of the scale the bass note of the chord happens to fall on; and, in cases of doubt, only a knowledge of the derivation can give this information. This system, therefore, necessitates a previous knowledge of some other arrangement of chords before they can be properly classified. It will be well also to avoid such names as the chords of the Added, French, German, Italian, Neapolitan, Sharp sixths, &c., because, as these names are given to chords not in their original position, the inversions must be reckoned, not as is simplest, from the ground-note, but from that note which happens to be the bass of the position to which the useless name has been attached.

Little more need be said on the subject of "figured bass," except, perhaps, to warn the student against expecting to find exercises interesting as specimens of musical composition. No schoolboy ever yet had much personal interest in the history of Balbus, nor must the enthusiastic musician hope to be moved to delight by the soulless pages which follow.

END OF APPENDIX.

EXERCISES.

EXERCISES.*

PART I.

ON CHORDS OF THE MAJOR SERIES.

	PAGES
On the Common Chord	3—12
On Tonic Discords	13—21
On Dominant Discords	22—34

PART II.

ON CHORDS OF THE MINOR SERIES.

On the Minor Common Chord	35
On Tonic Discords	36—45
On Dominant Discords	46—52
On Chords of the Augmented Sixth	53—55
On the Chord of the Neapolitan Sixth ...	55—56

* It may be found desirable that young pupils should harmonise only those Exercises in which both Treble and Bass are given.

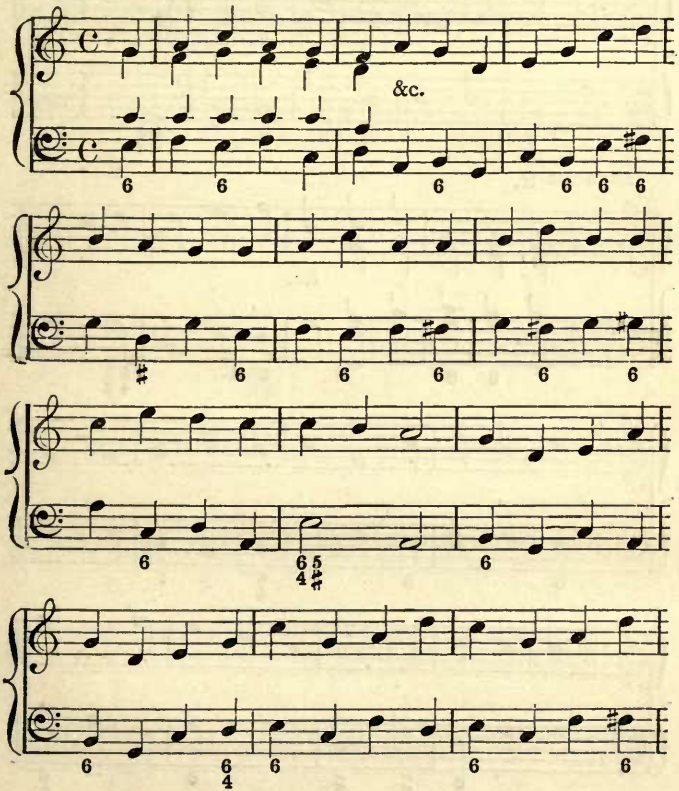
EXERCISES.

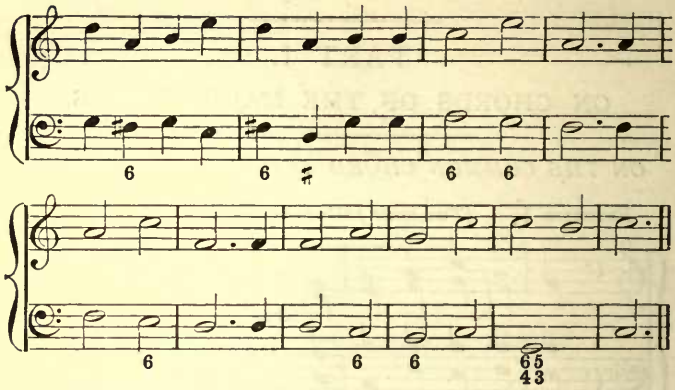
PART I.

ON CHORDS OF THE MAJOR SERIES.

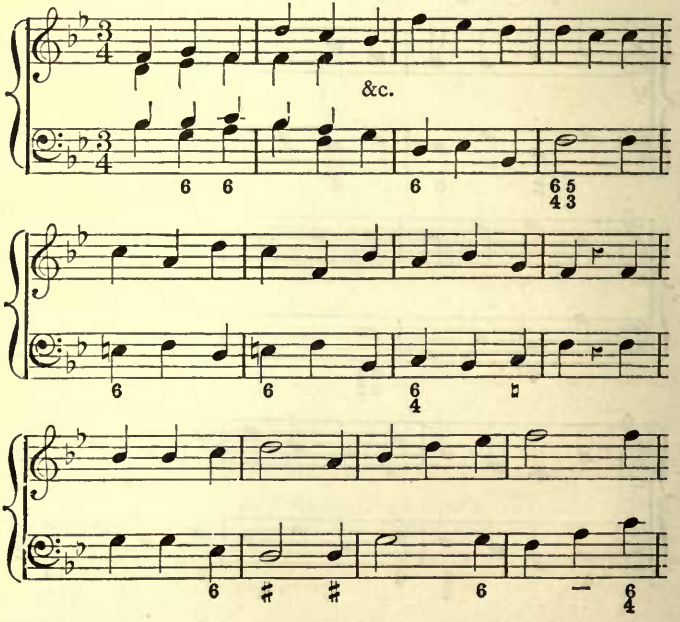
ON THE COMMON CHORD AND ITS INVERSIONS.

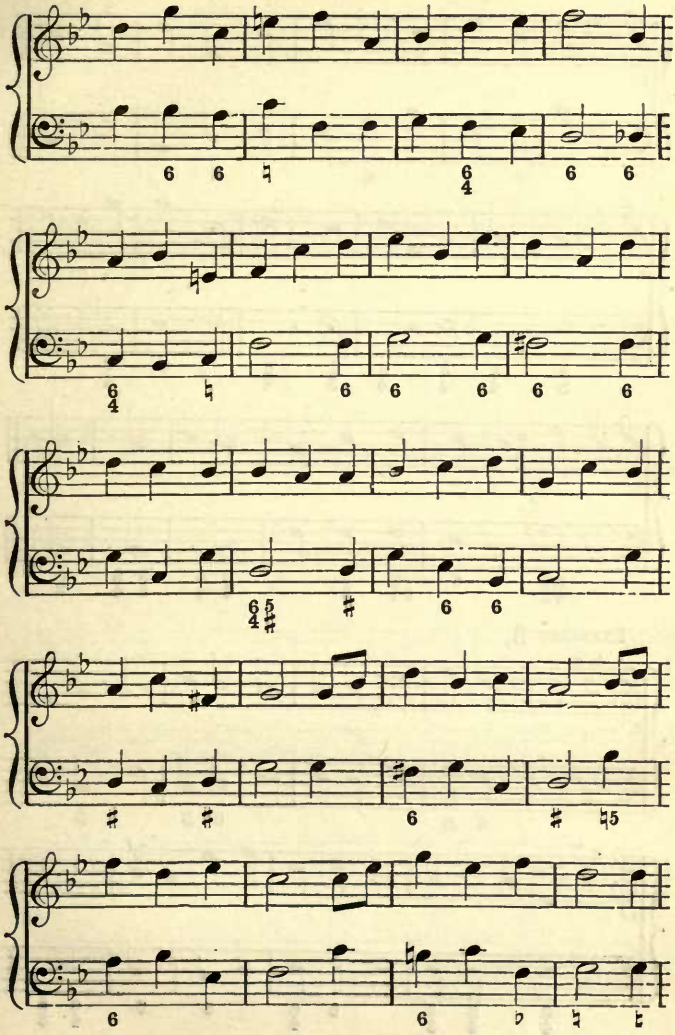
EXERCISE 1. *(Two inner parts to be added.)*

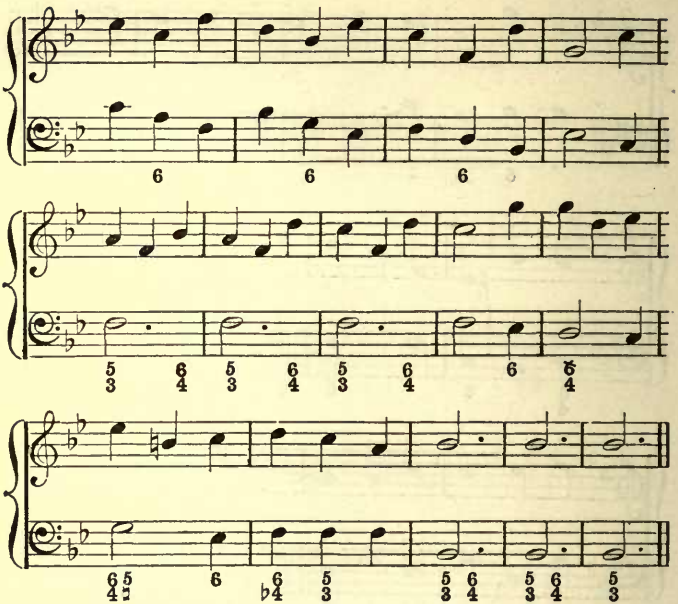




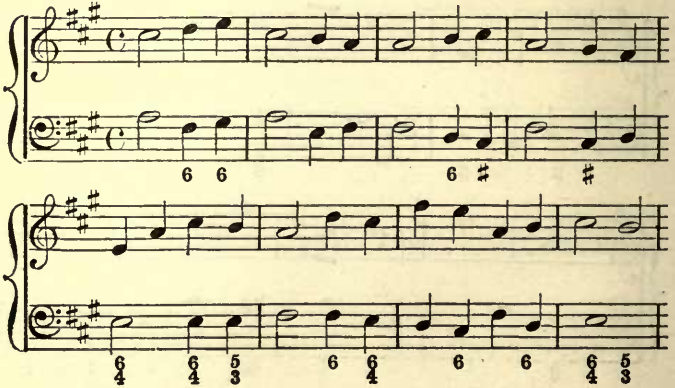
EXERCISE 2.

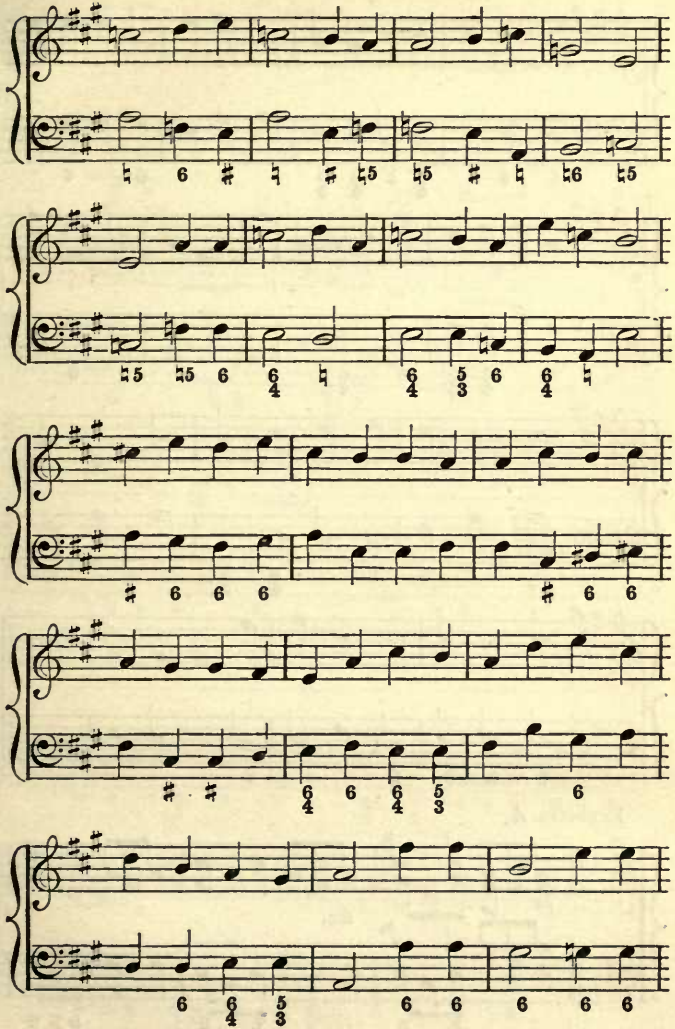


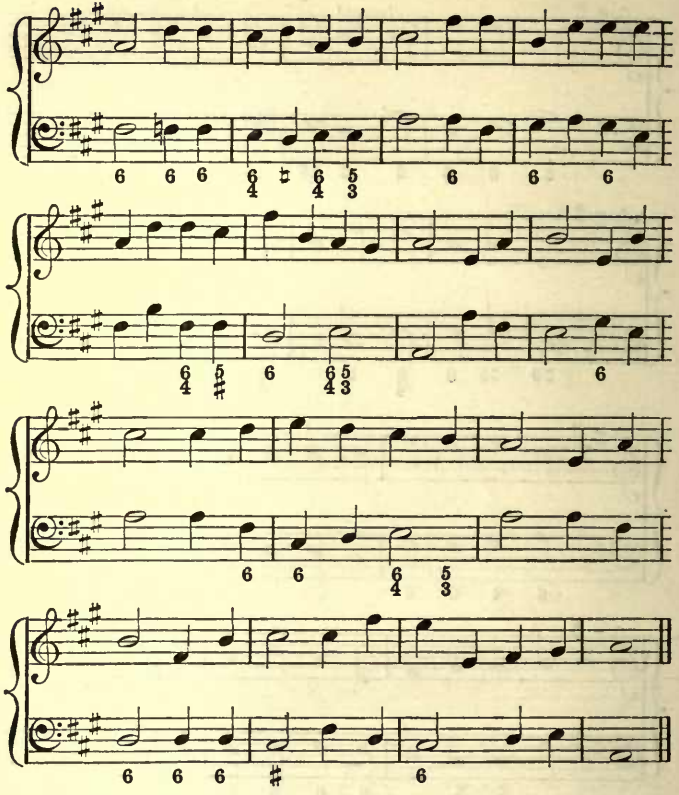




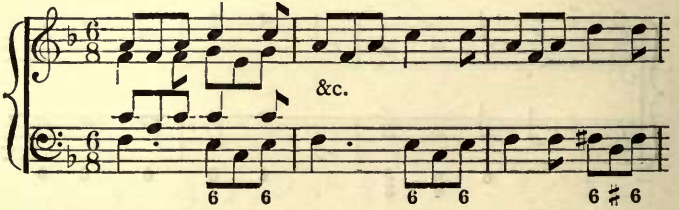
EXERCISE 3.

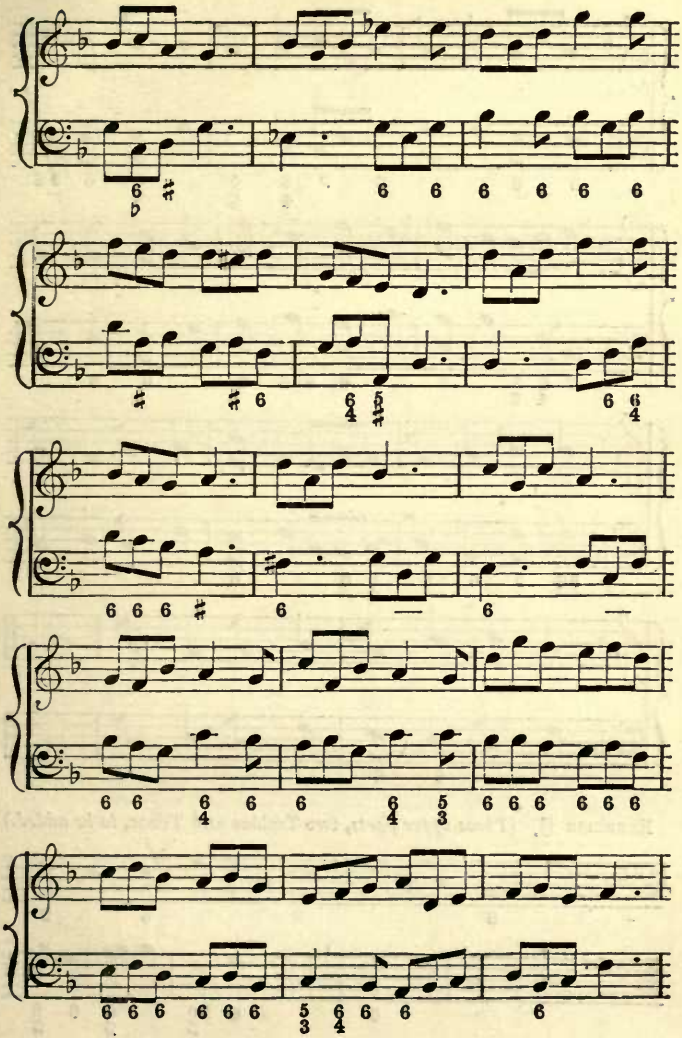


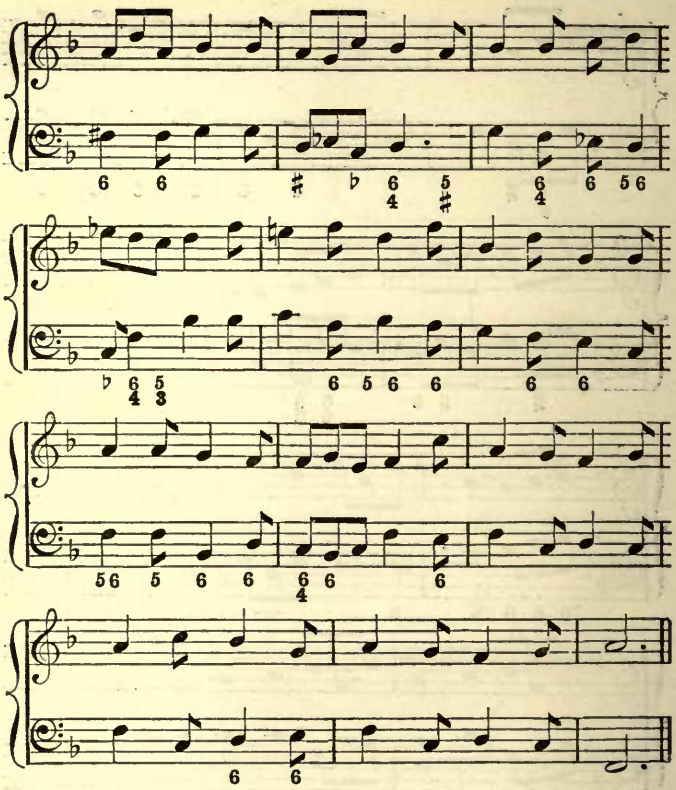

♮ 6 ♯ ♮ ♯ ♮5 ♮5 ♯ ♮ ♮6 ♮5
♮5 ♮5 6 6/4 ♮ 6/4 5/3 6 6/4 ♮
♯ 6 6 6 ♯ 6 6
♯ · ♯ 6/4 6 6/4 5/3 6
6 6/4 5/3 6 6 6 6 6



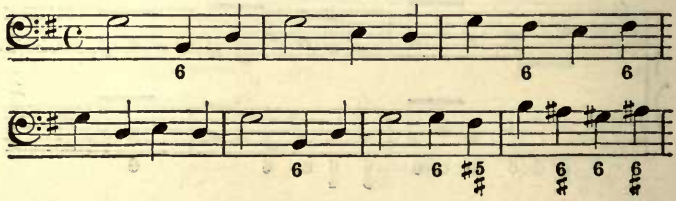
EXERCISE 4.

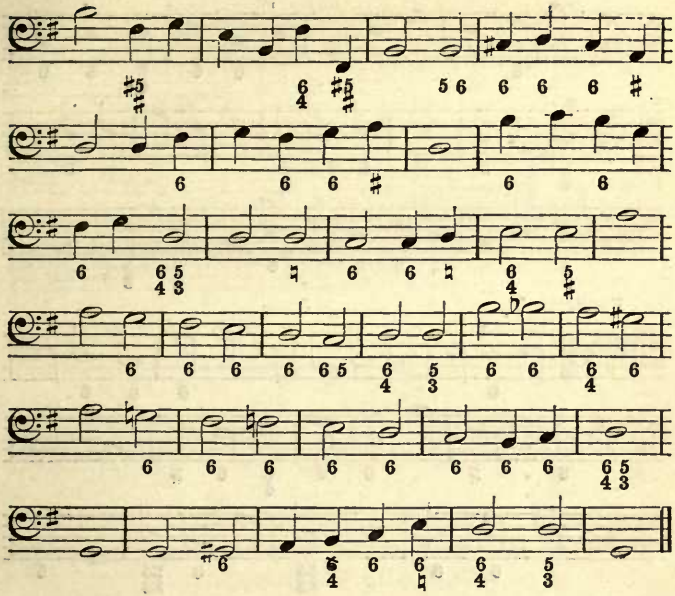




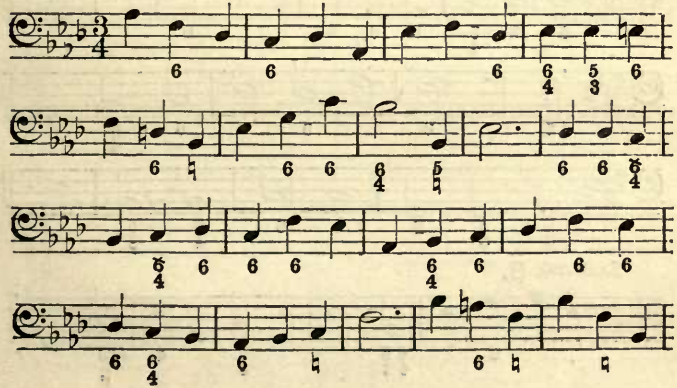


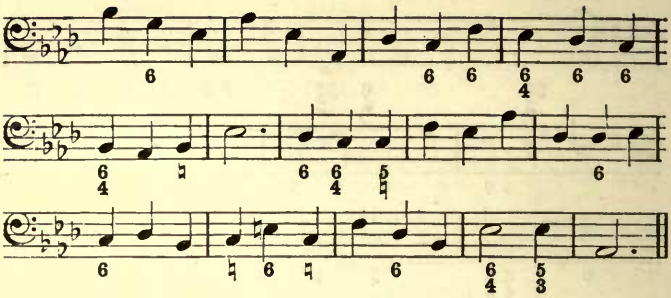
EXERCISE 5. (*Three upper parts*, two Trebles and Tenor, *to be added.*)



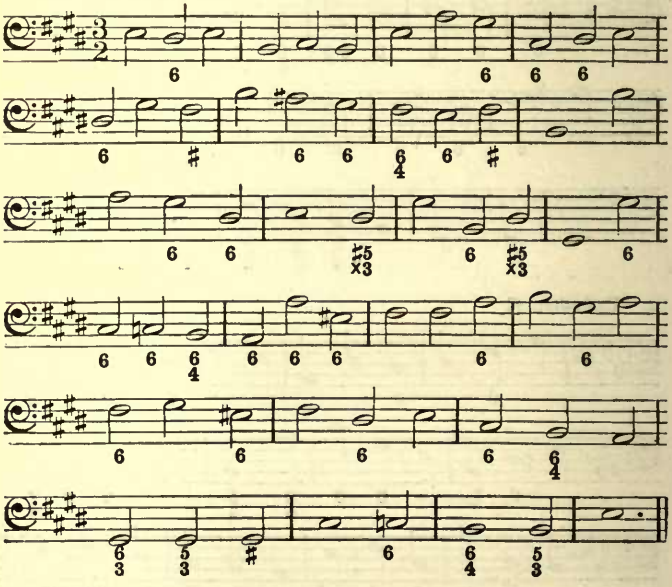


EXERCISE 6.

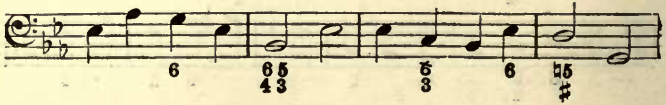


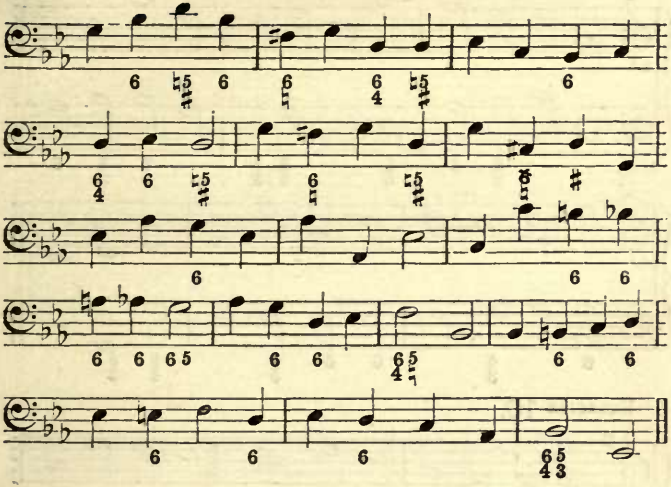


EXERCISE 7.



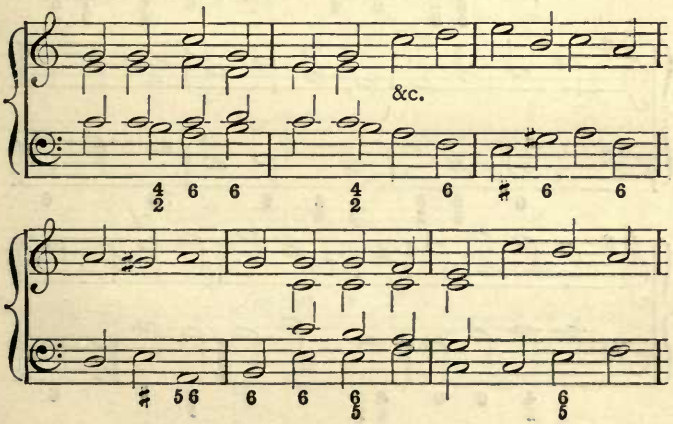
EXERCISE 8.

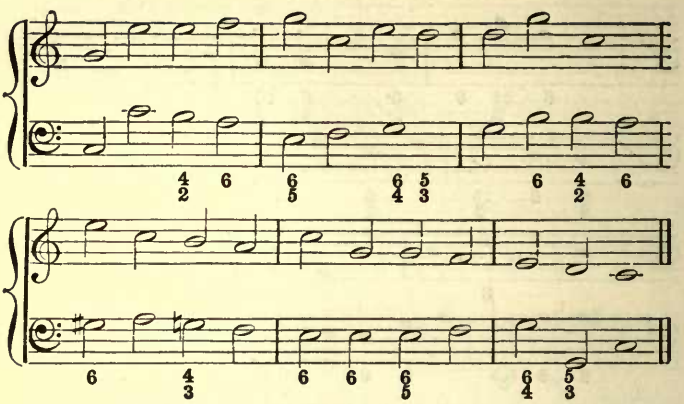




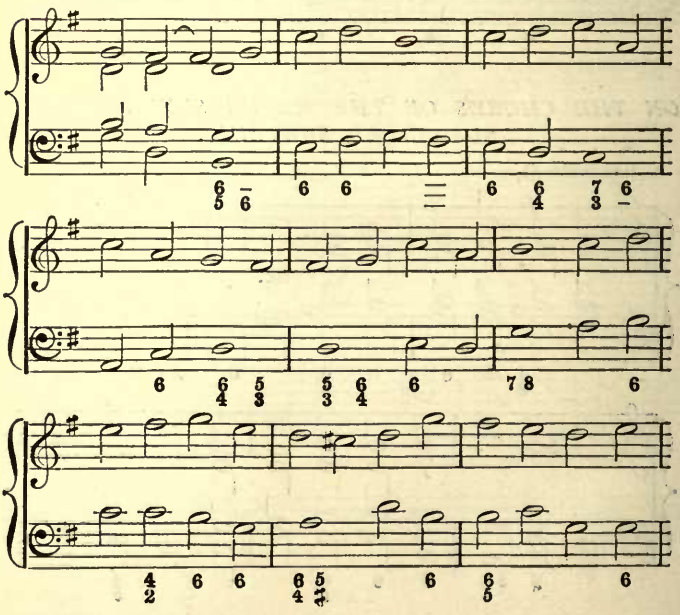
ON THE CHORDS OF THE MAJOR SEVENTH AND SUSPENDED SUBTONIC.

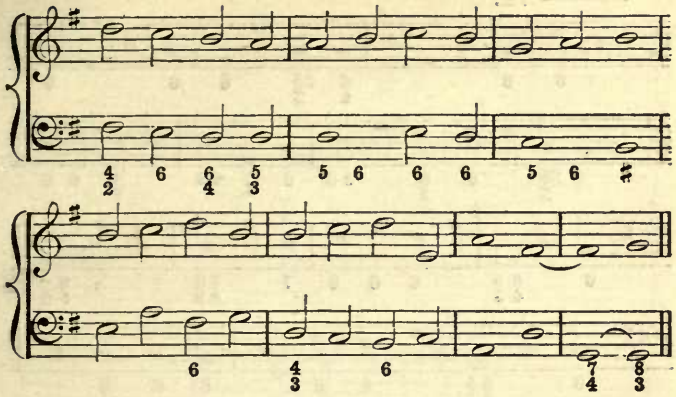
EXERCISE 9.



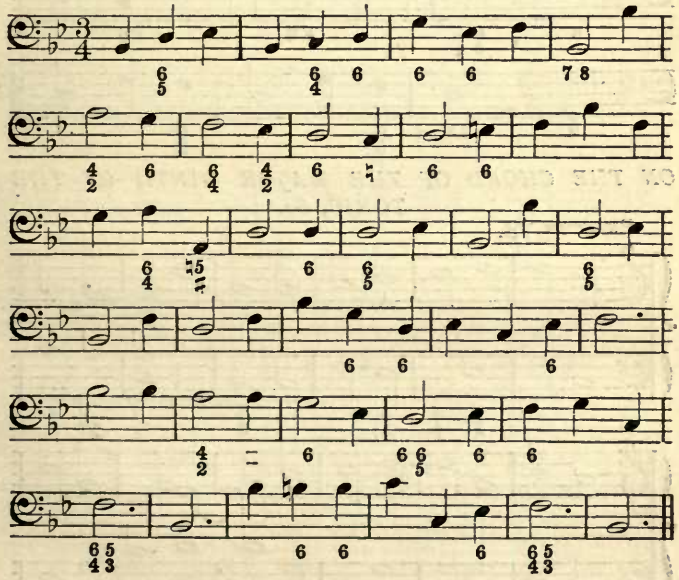


EXERCISE 10.

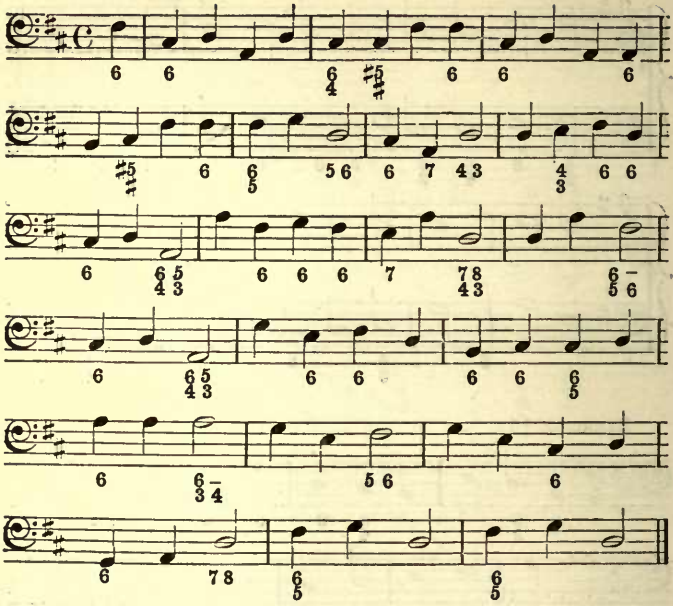




EXERCISE 11.

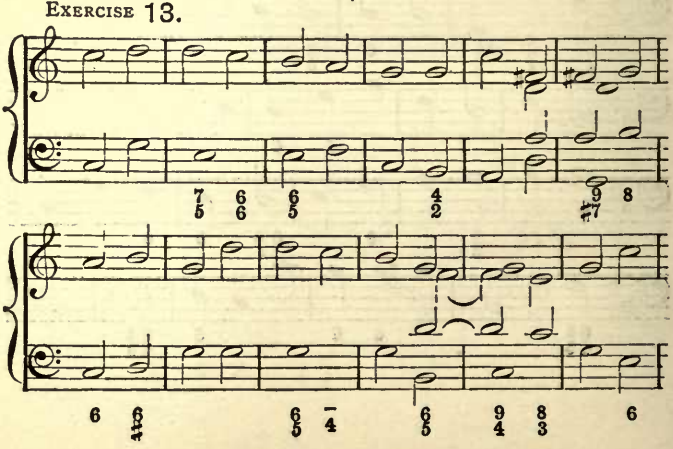


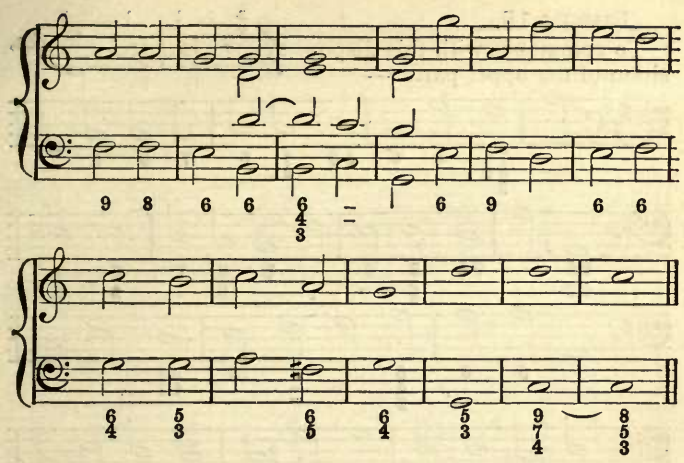
EXERCISE 12.



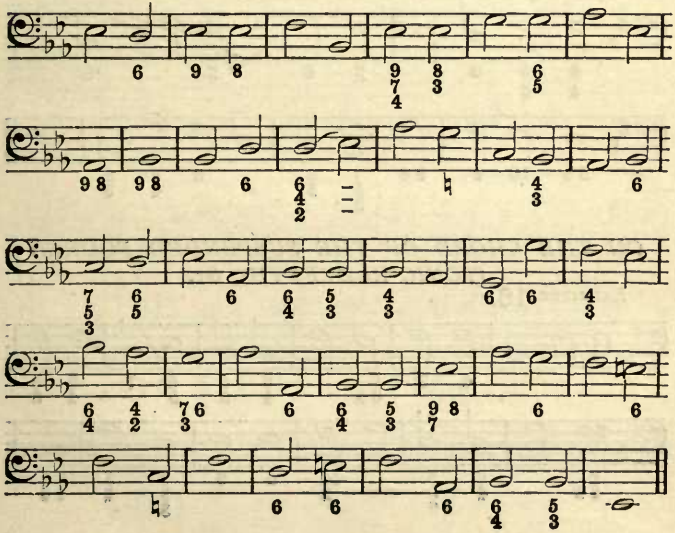
ON THE CHORD OF THE MAJOR NINTH OF THE TONIC, &c.

EXERCISE 13.



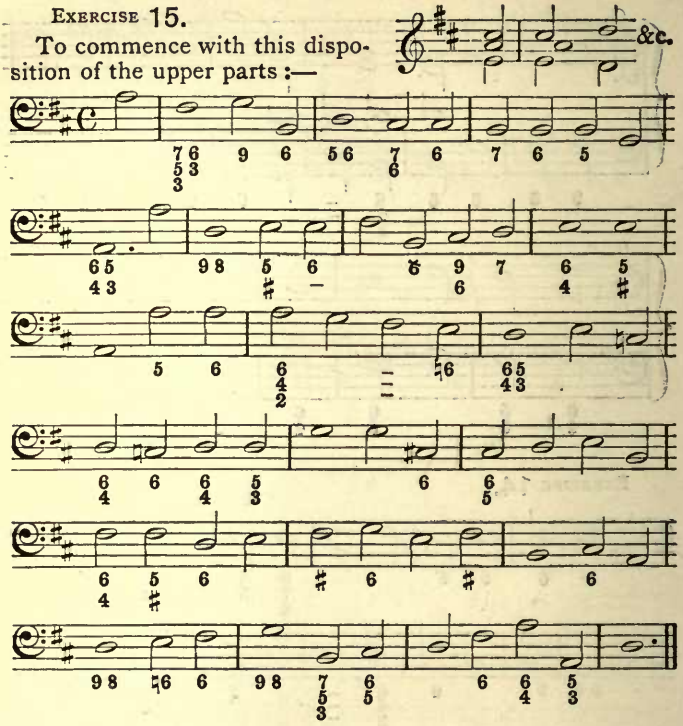


EXERCISE 14.



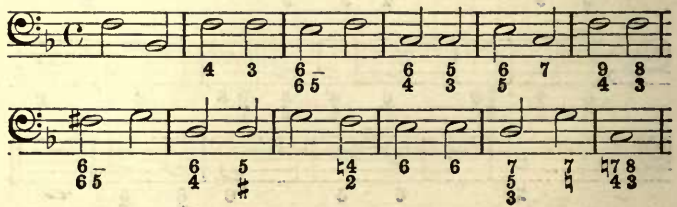
EXERCISE 15.

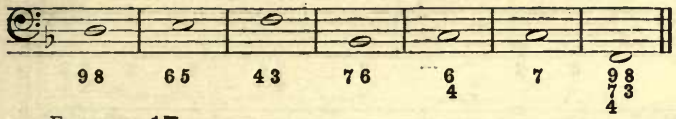
To commence with this disposition of the upper parts :—



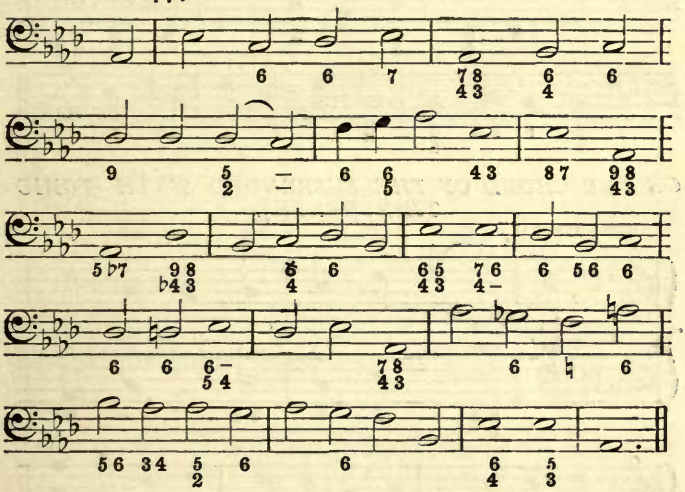
ON THE CHORD OF THE SUSPENDED FOURTH (TONIC ELEVENTH), &c.

EXERCISE 16.

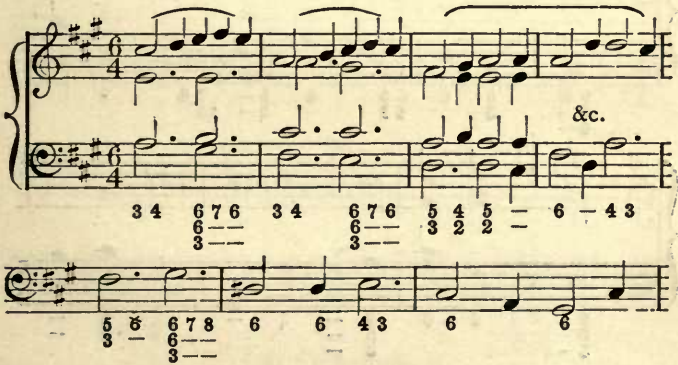


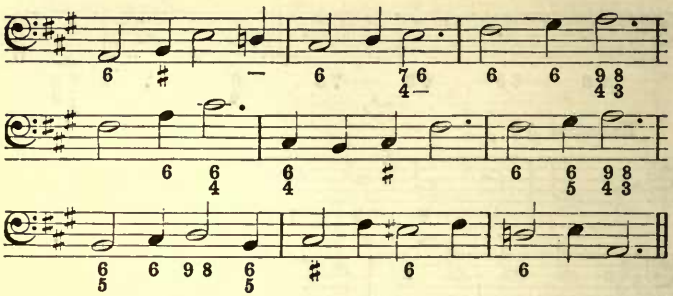


EXERCISE 17.



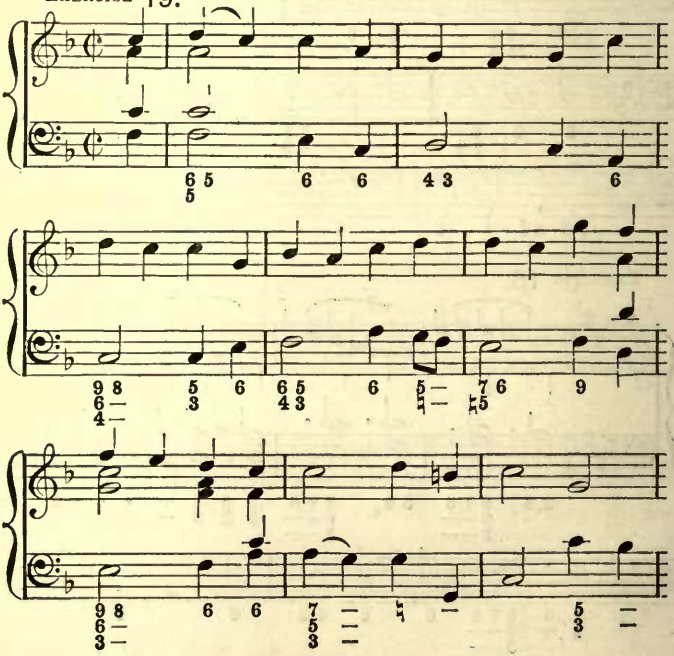
EXERCISE 18.

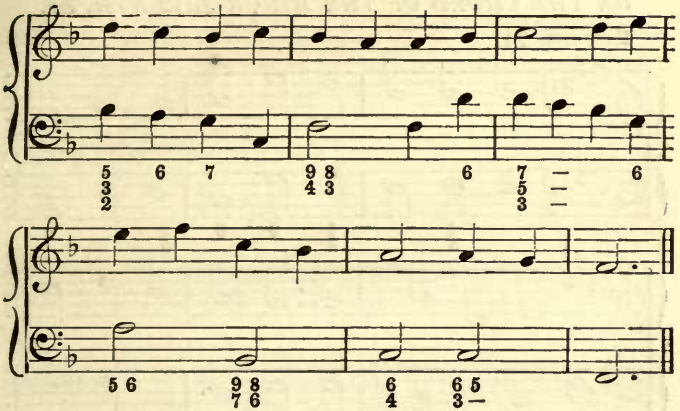




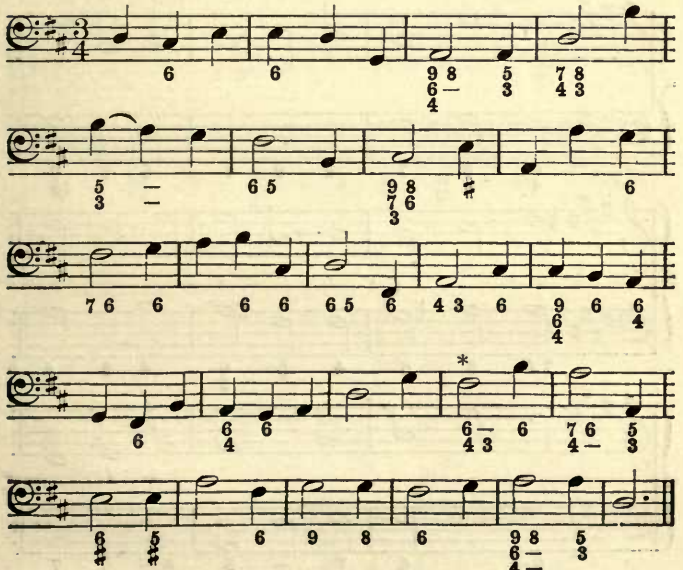
ON THE CHORD OF THE SUSPENDED SIXTH (TONIC THIRTEENTH).

EXERCISE 19.





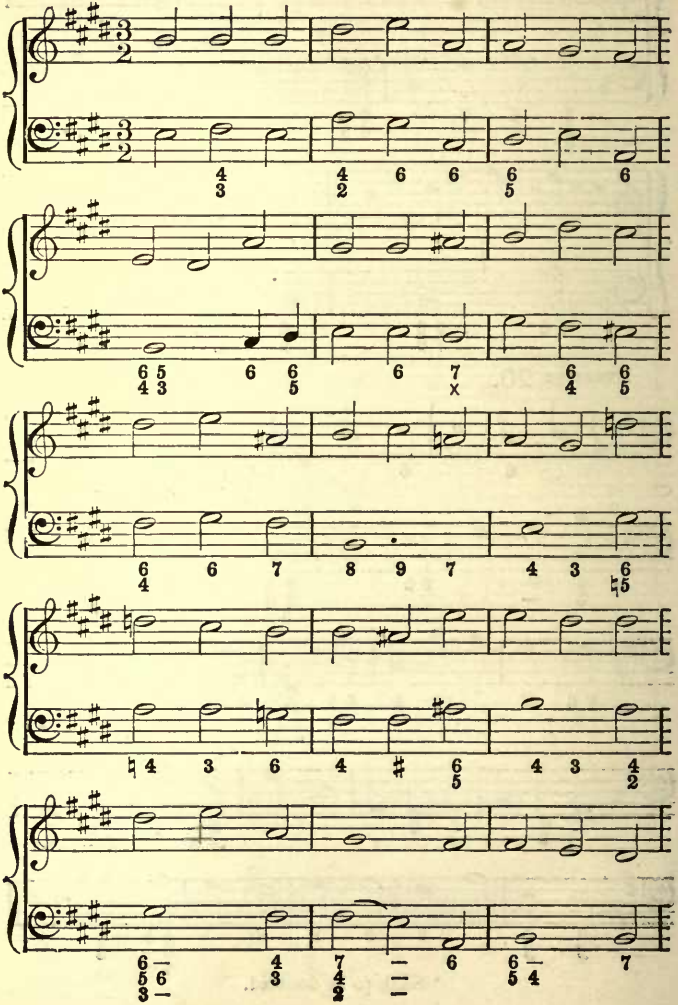
EXERCISE 20.

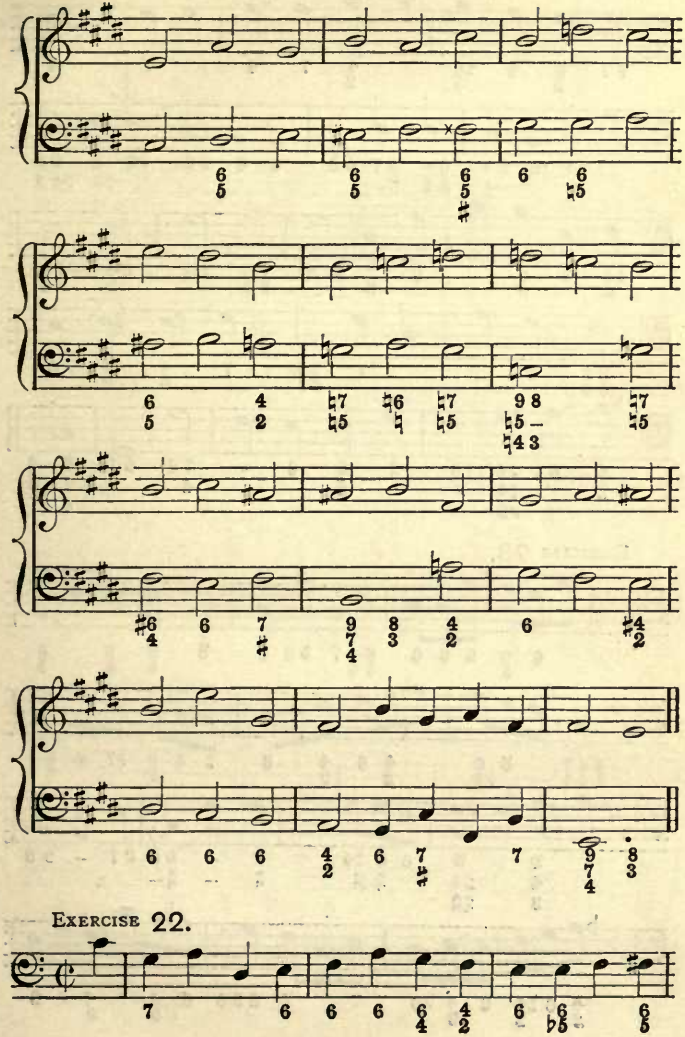


* Sixth to be doubled.

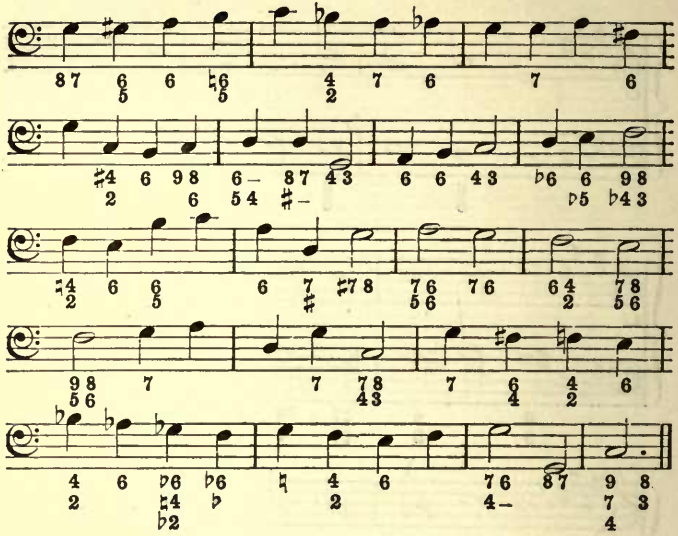
ON THE CHORD OF THE MINOR SEVENTH, &c.

EXERCISE 21.

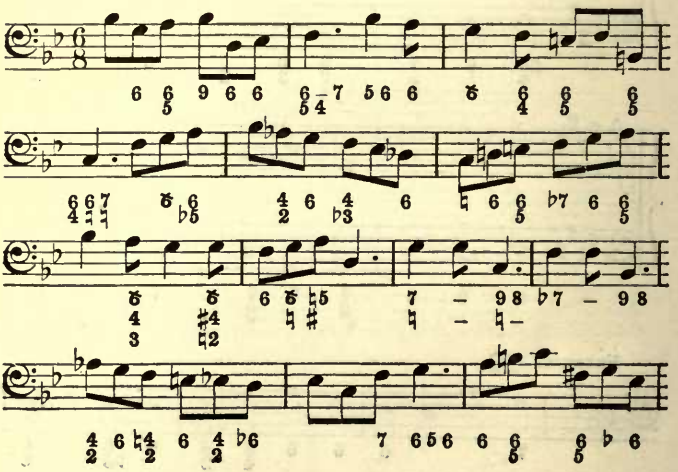


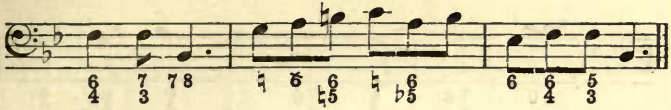


EXERCISE 22.

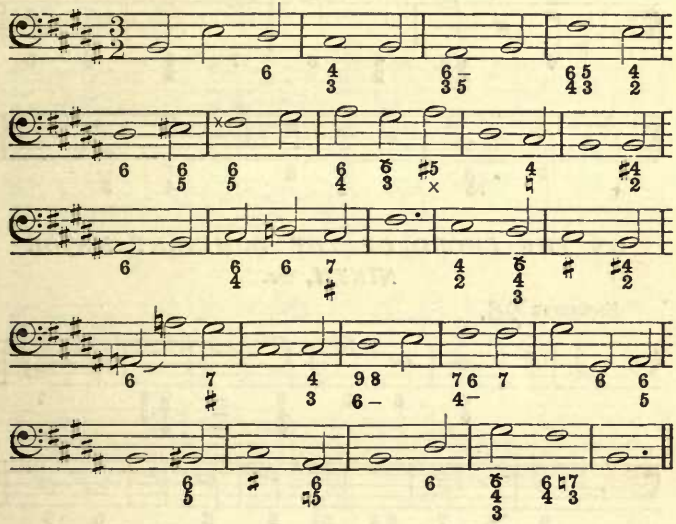


EXERCISE 23.

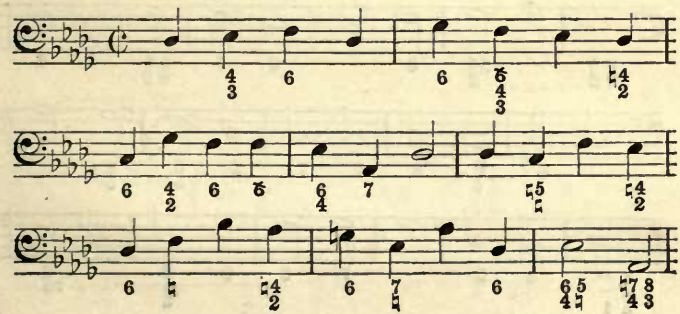


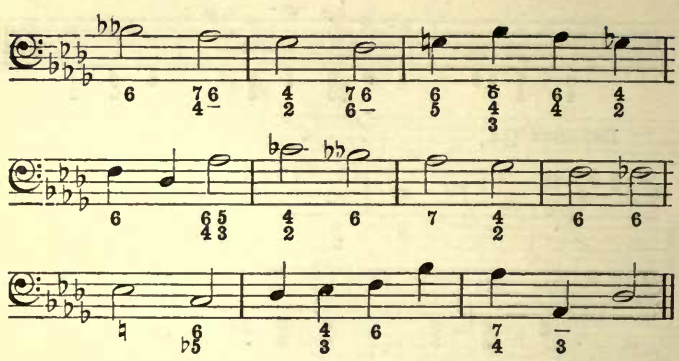


EXERCISE 24.



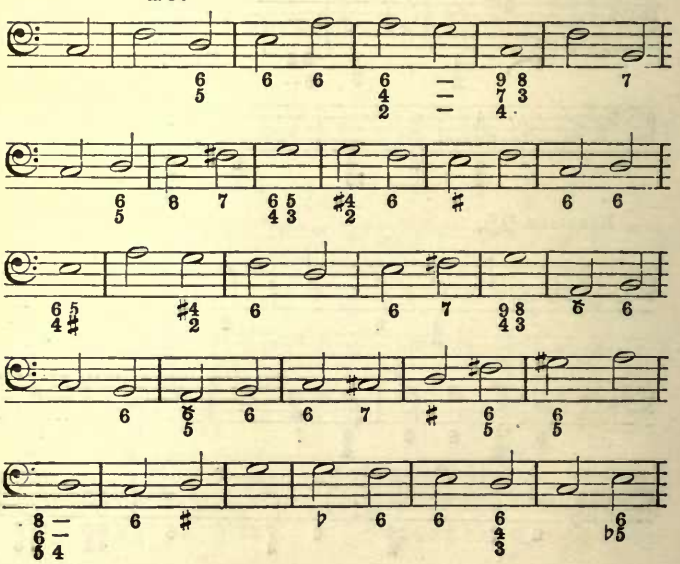
EXERCISE 25.

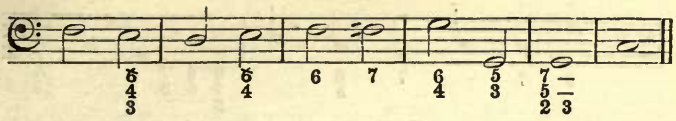




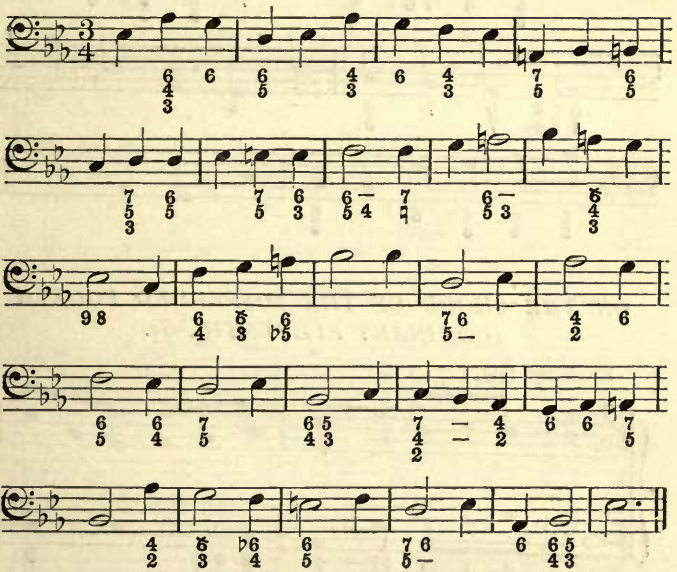
ON THE CHORD OF THE DOMINANT MAJOR NINTH, &c.

EXERCISE 26.

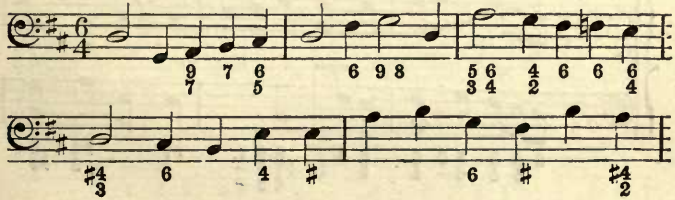


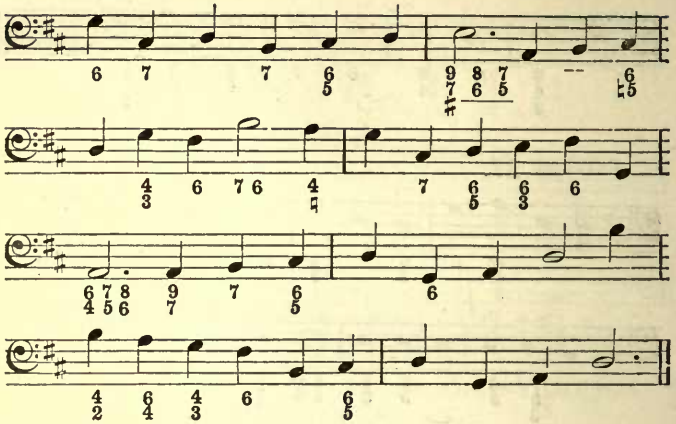


EXERCISE 27.



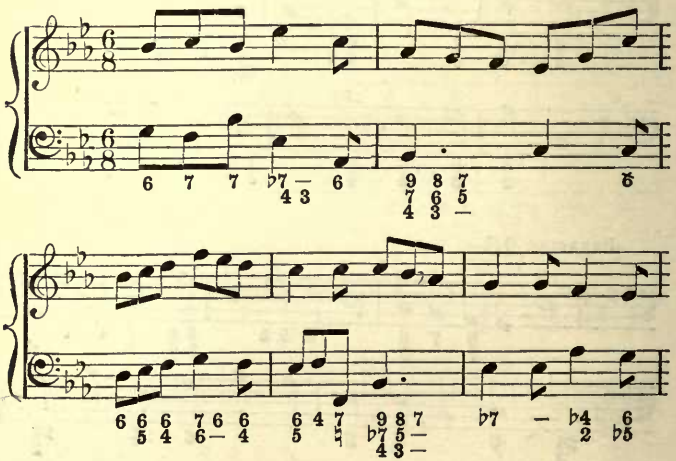
EXERCISE 28.

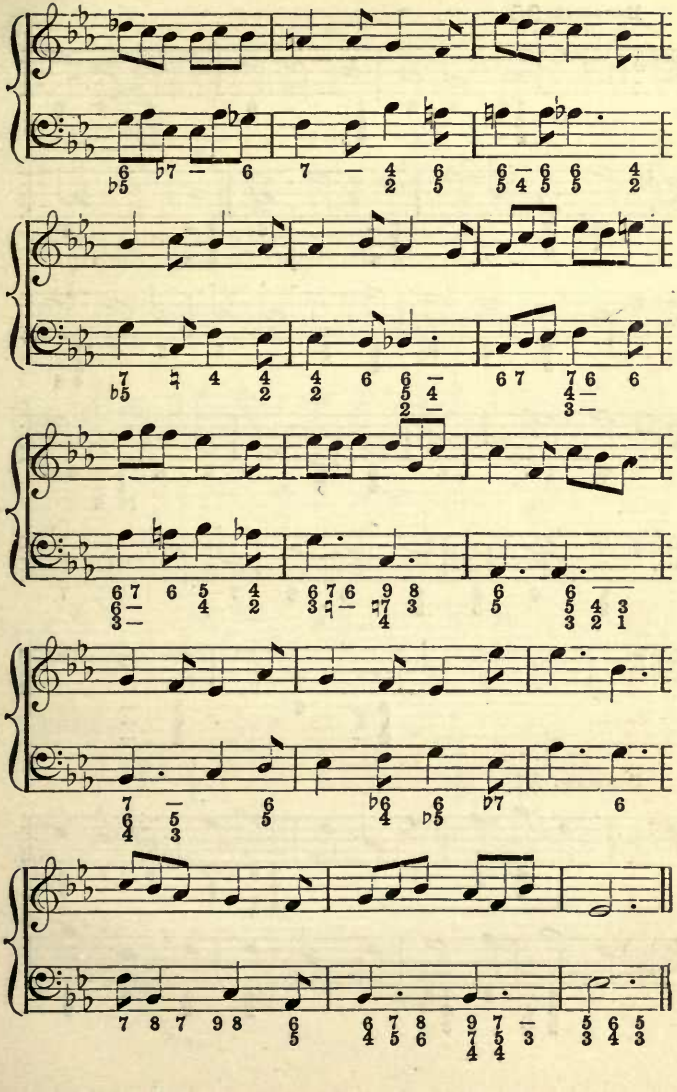




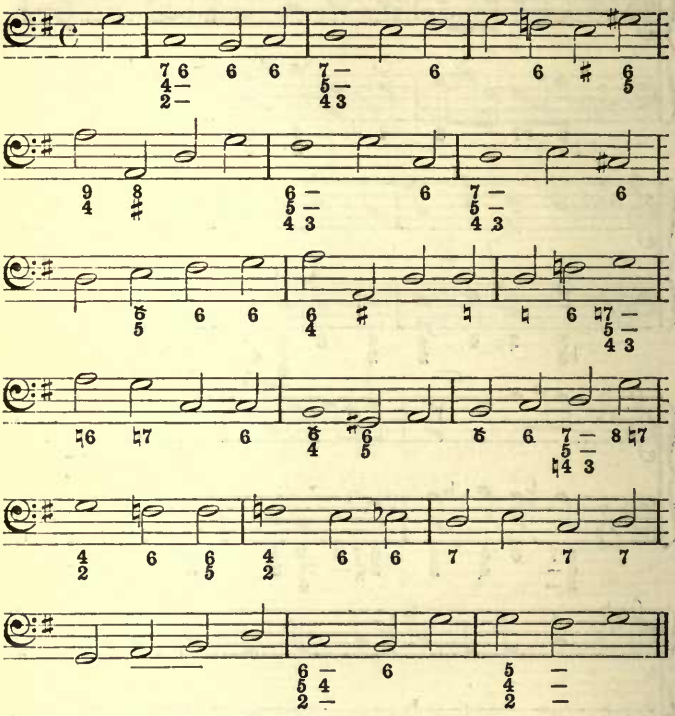
ON THE CHORD OF THE SUSPENDED FOURTH (DOMINANT ELEVENTH), &c.

EXERCISE 29.

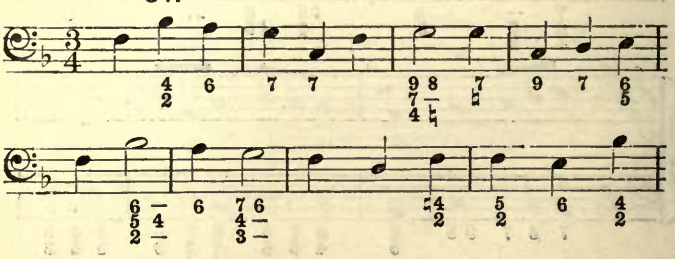


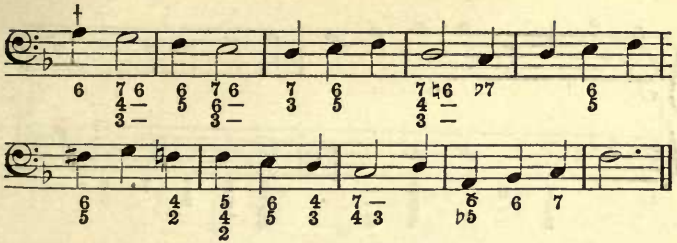


EXERCISE 30.



EXERCISE 31.

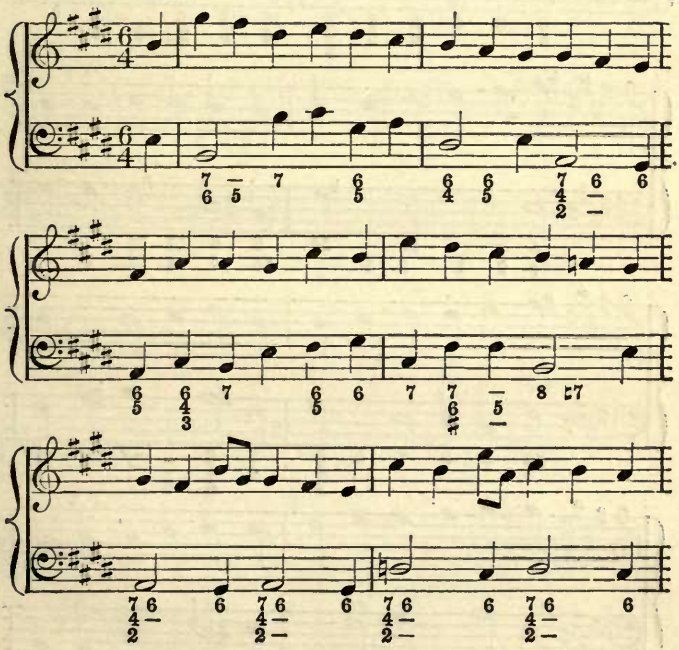


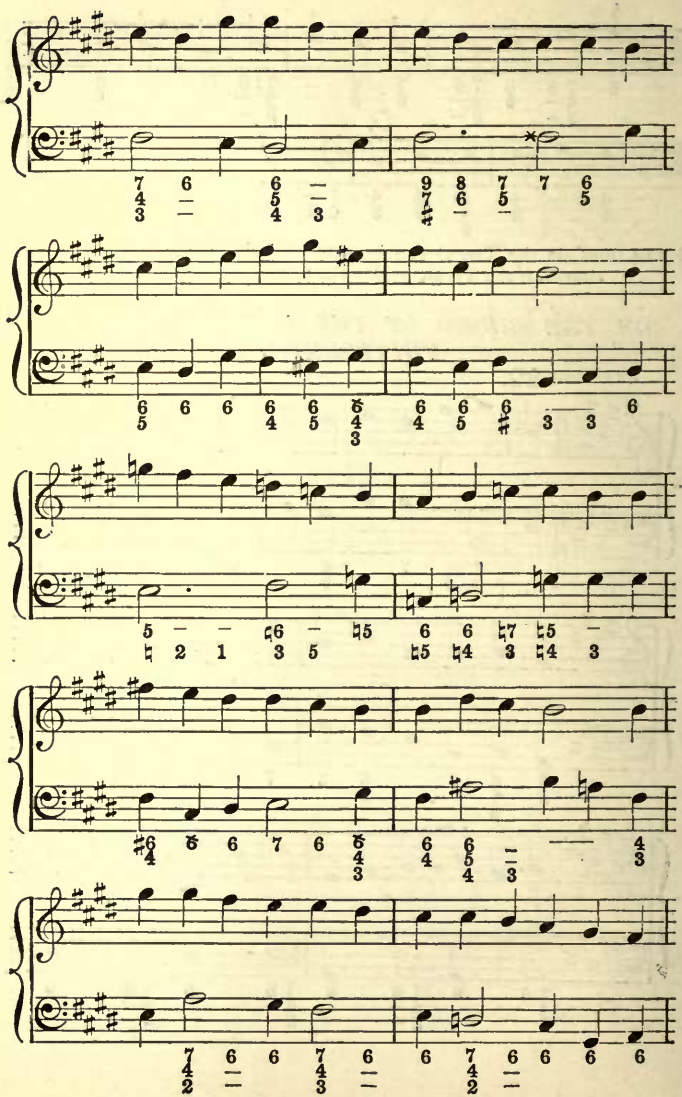


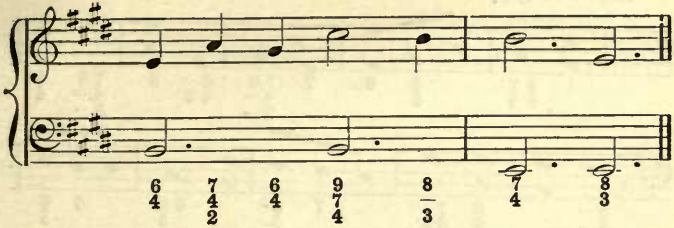
† The third (in the Tenor) can be sustained through the following six chords, if the Treble begins the phrase on the upper F.

ON THE CHORD OF THE DOMINANT MAJOR THIRTEENTH.

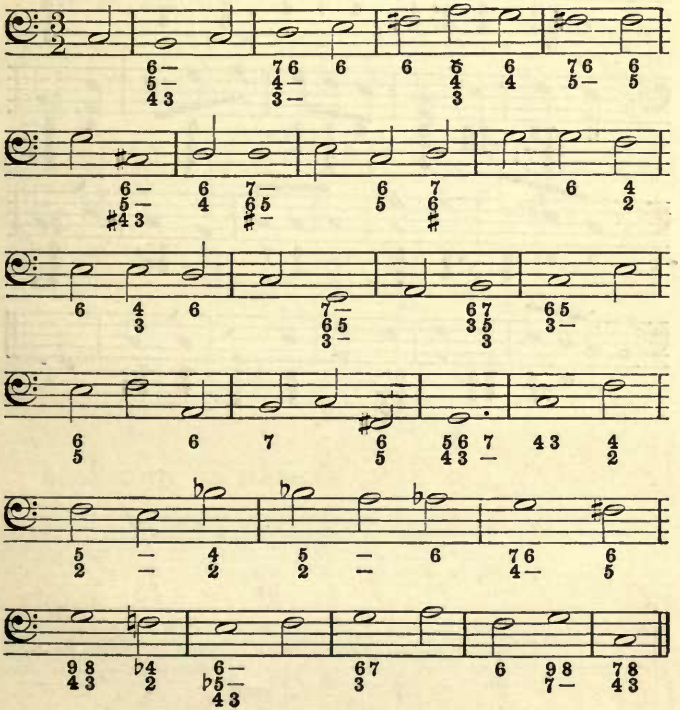
EXERCISE 32.



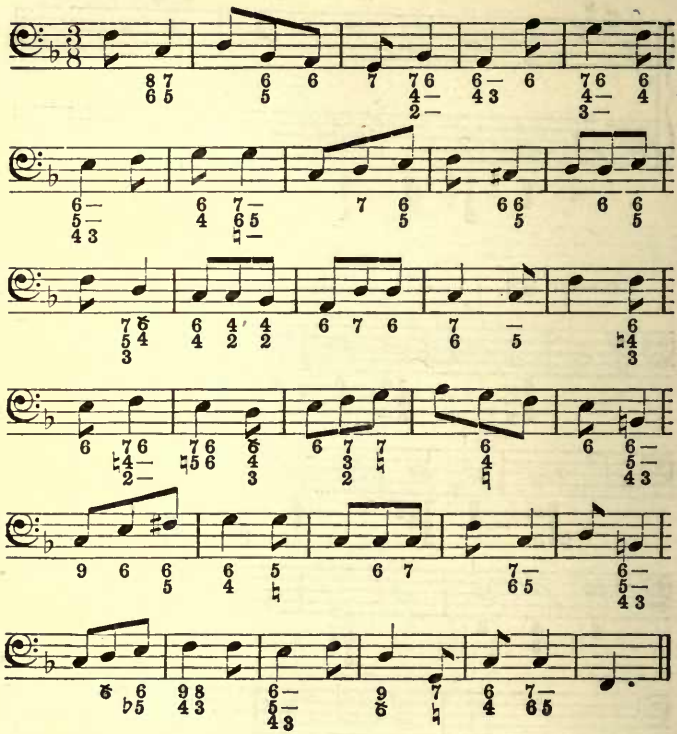




EXERCISE 33.



EXERCISE 34.

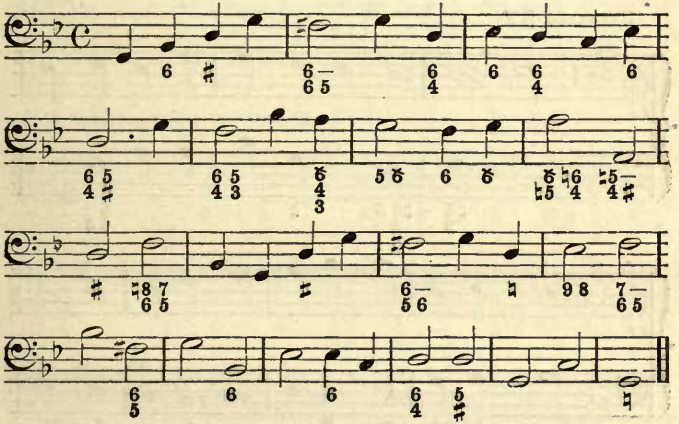


EXERCISES ON CHORDS OF THE MINOR SERIES.

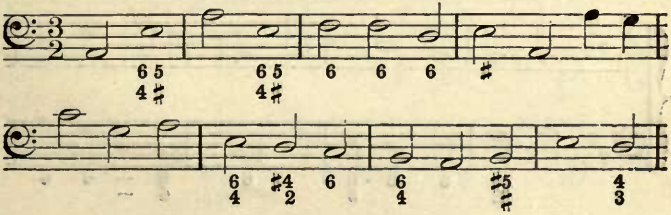
PART II.

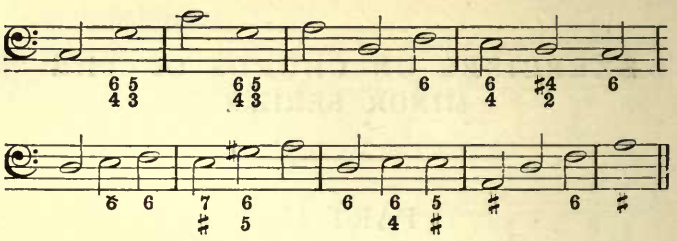
THE MINOR COMMON CHORD AND ITS INVERSIONS.

EXERCISE 35. (*In Five Parts.*)



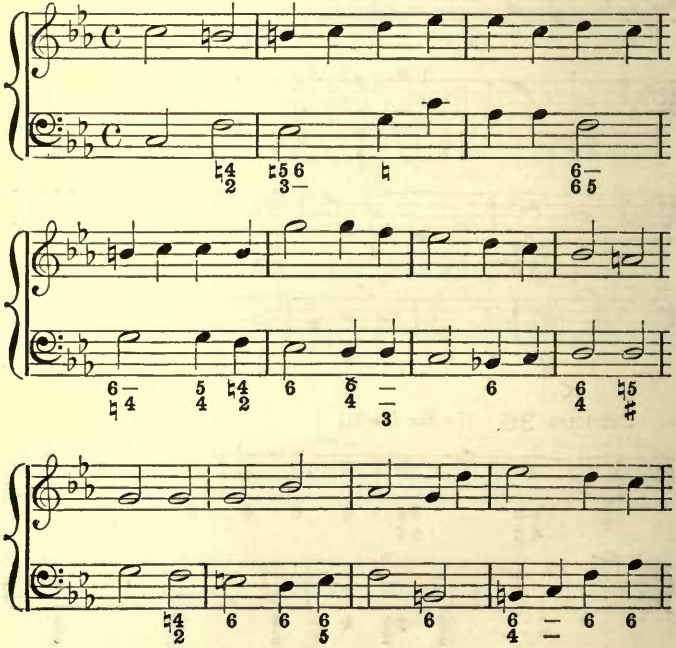
EXERCISE 36. (*In Six Parts.*)

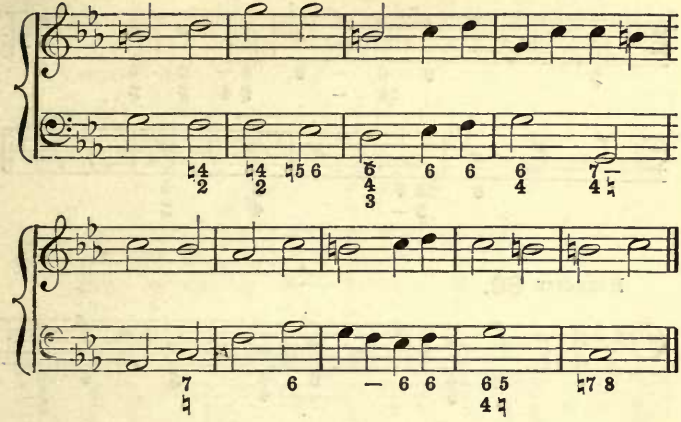




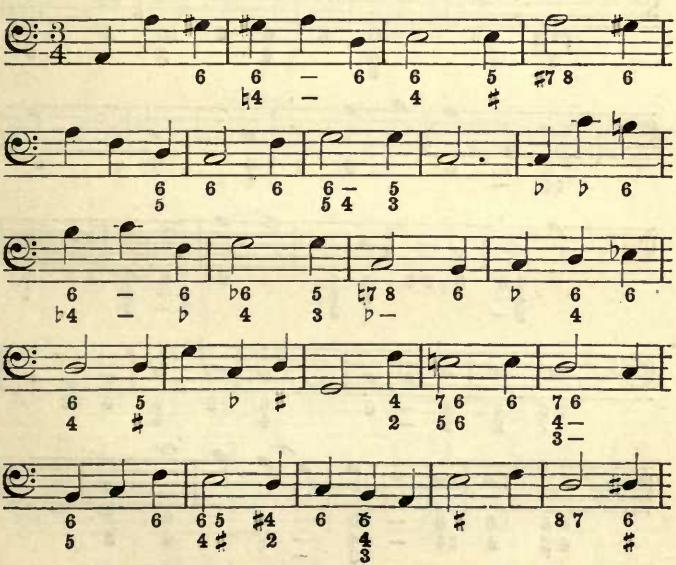
ON THE CHORD OF THE SUBTONIC AND MINOR THIRD.

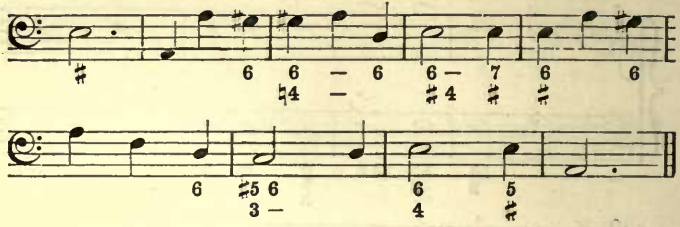
EXERCISE 37.



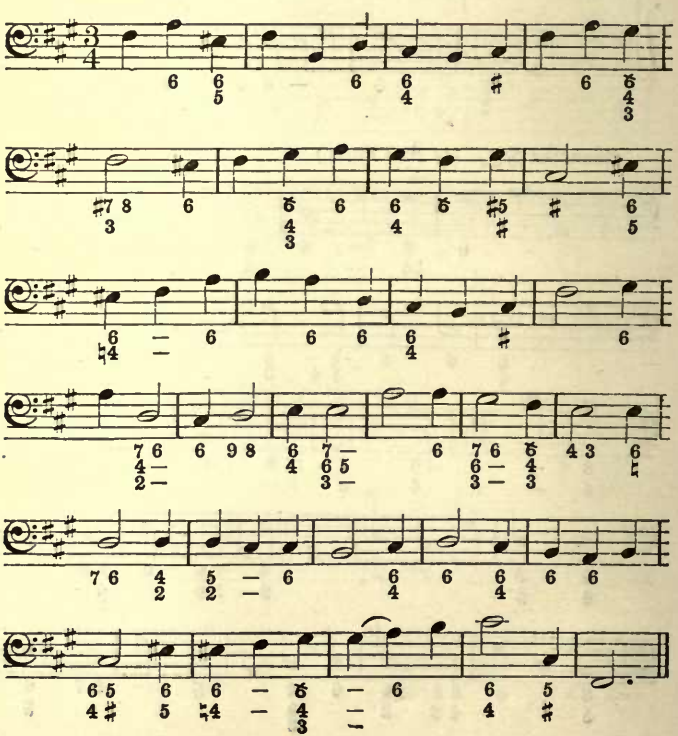


EXERCISE 38. (*In Five Parts.*)



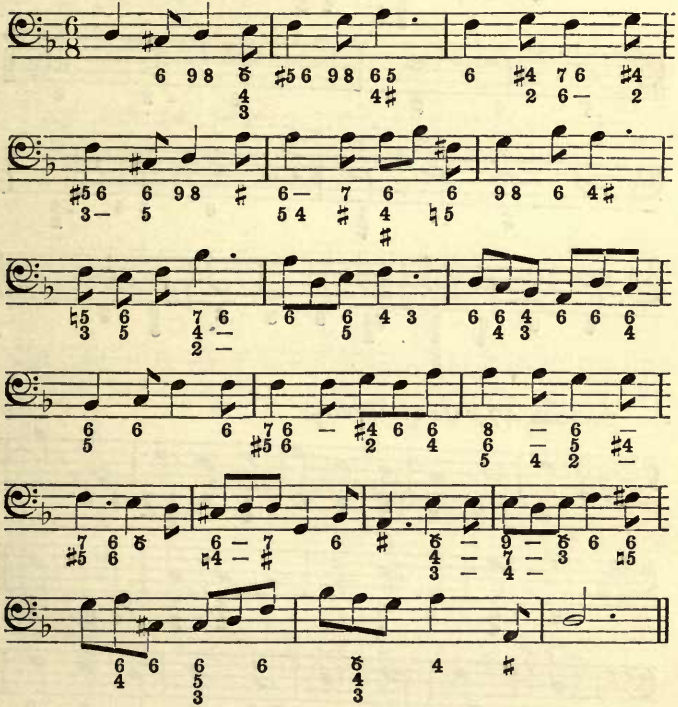


Exercise 39.

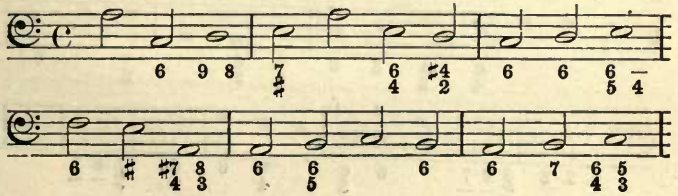


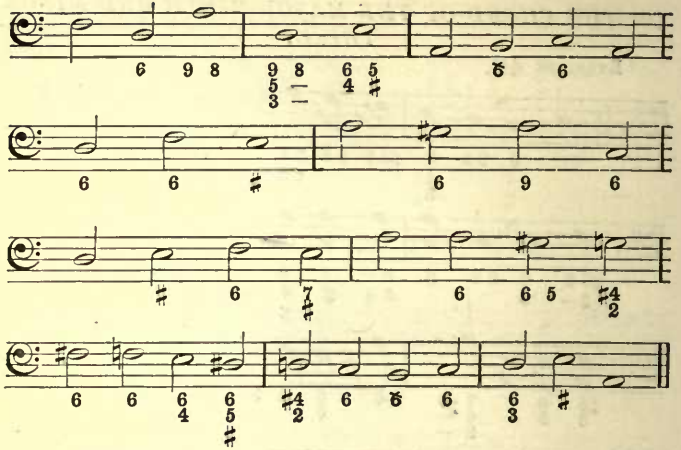
ON THE CHORD OF THE MAJOR NINTH AND MINOR THIRD.

EXERCISE 40.

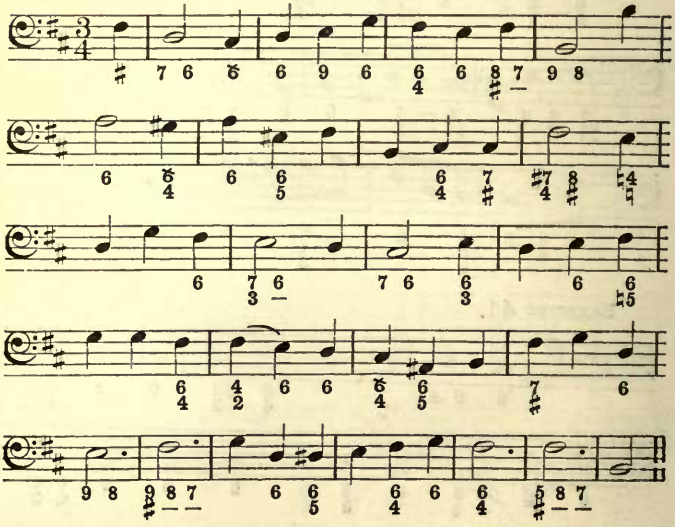


EXERCISE 41.



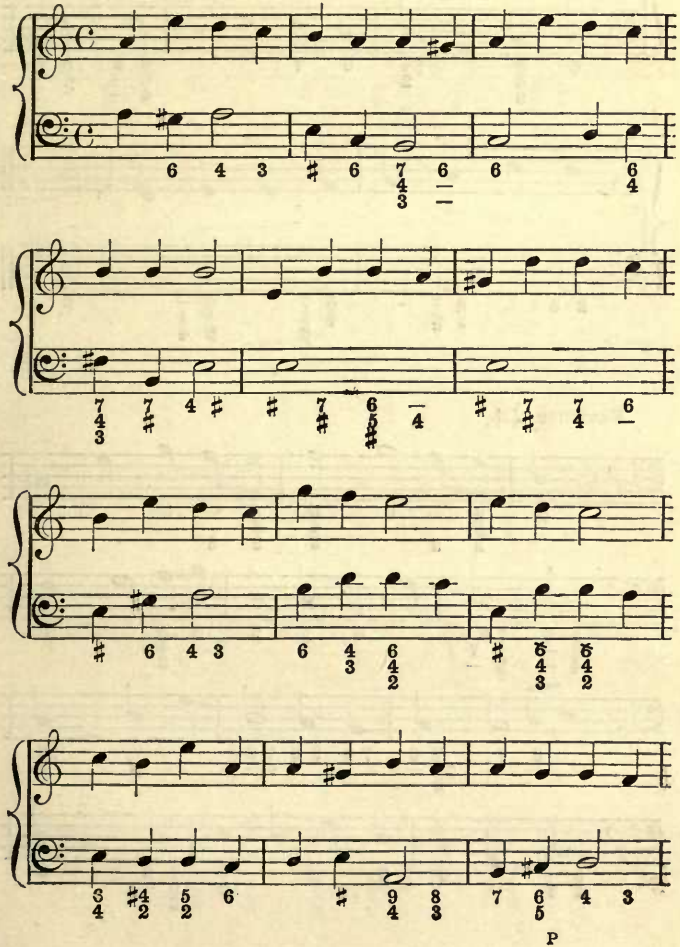


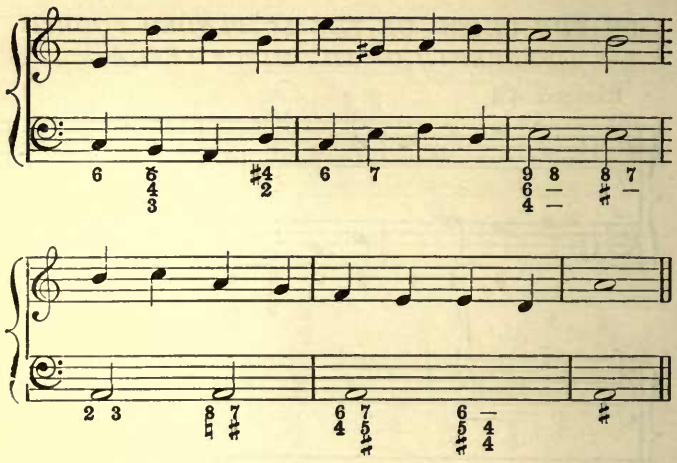
EXERCISE 42. (*In Three Parts.*)



ON THE CHORD OF THE SUSPENDED FOURTH (ELEVENTH OF THE MINOR KEY), &c.

EXERCISE 43.





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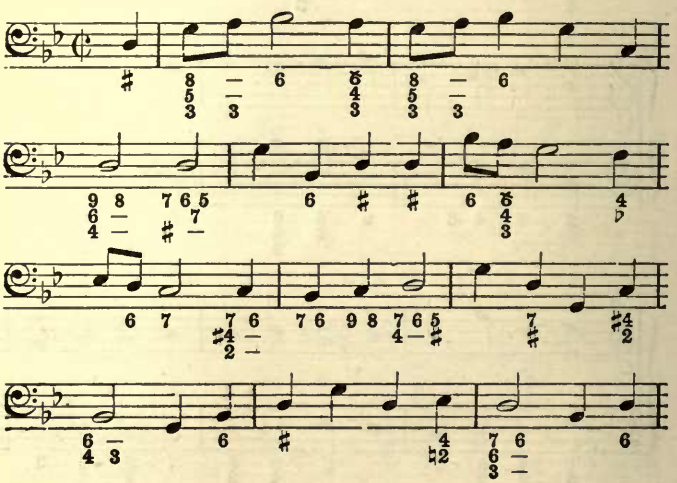

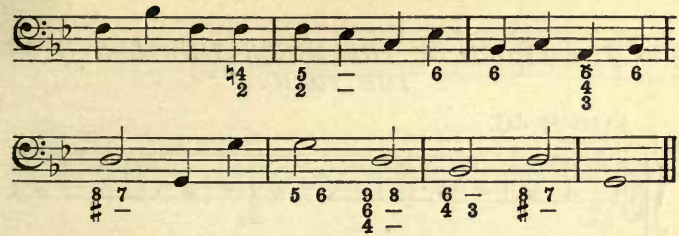

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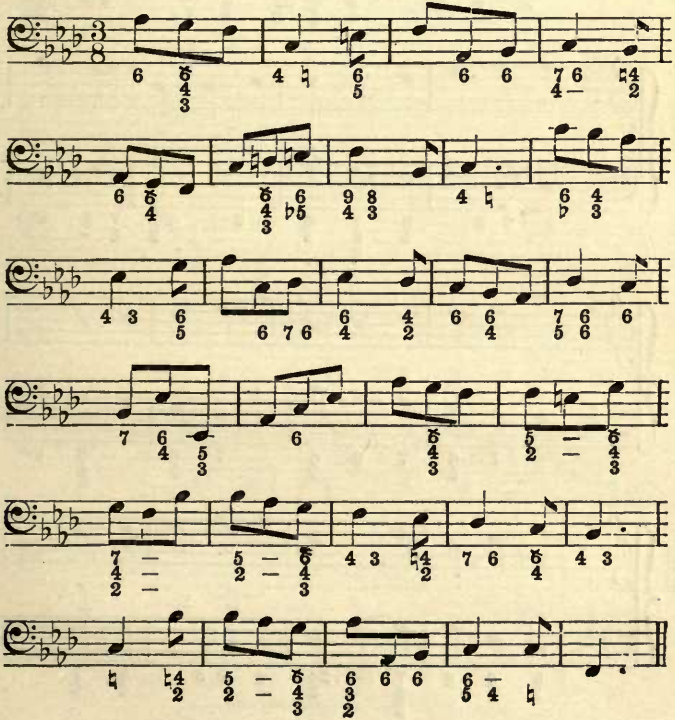
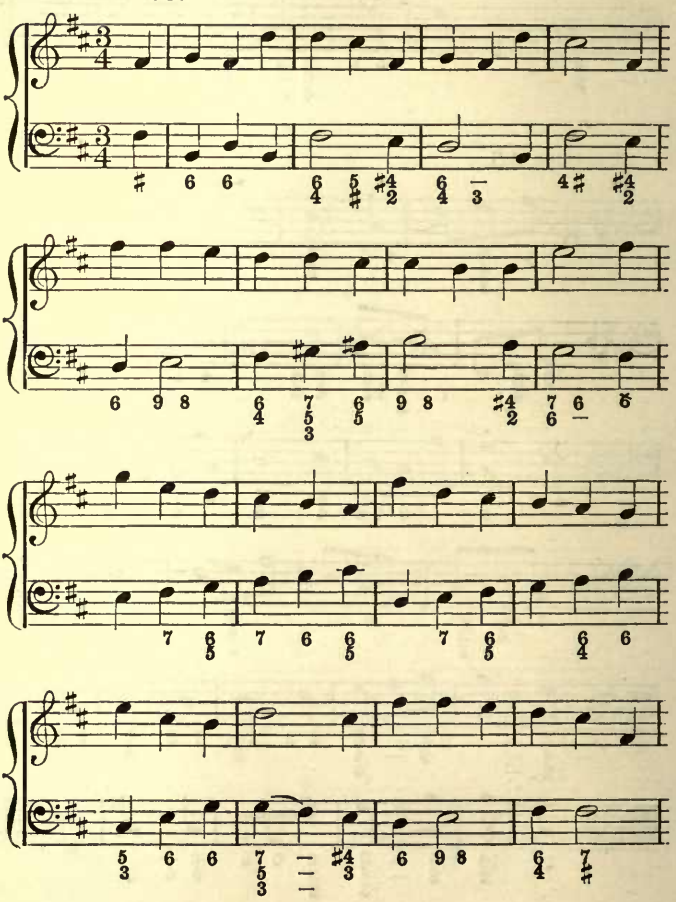
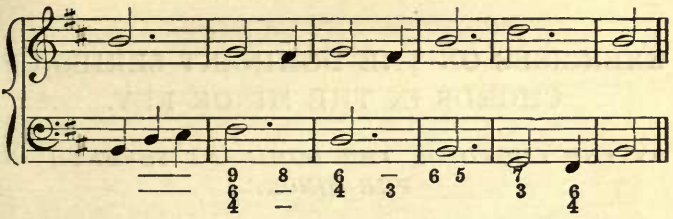


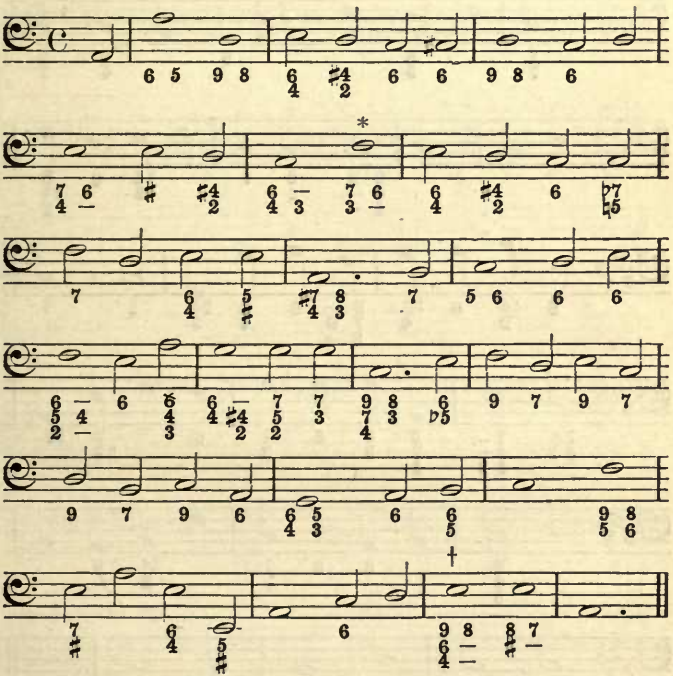
ON THE CHORD OF THE MINOR THIRTEENTH ON THE TONIC.

EXERCISE 46.





EXERCISE 47. (*In Five Parts.*)



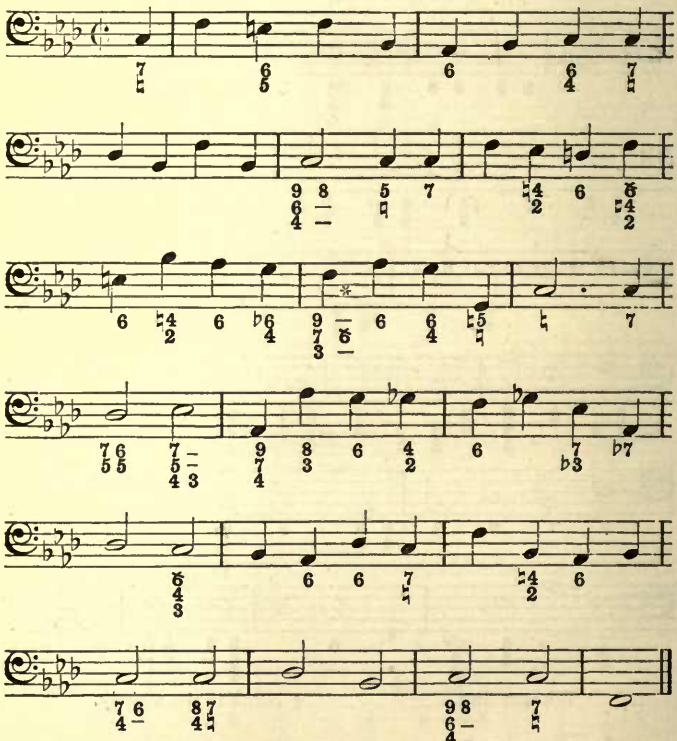
* Without fifth.

† Ninth in the melody.

EXERCISES ON THE DOMINANT SERIES OF CHORDS IN THE MINOR KEY.

ON THE CHORD OF THE DOMINANT SEVENTH IN THE MINOR.

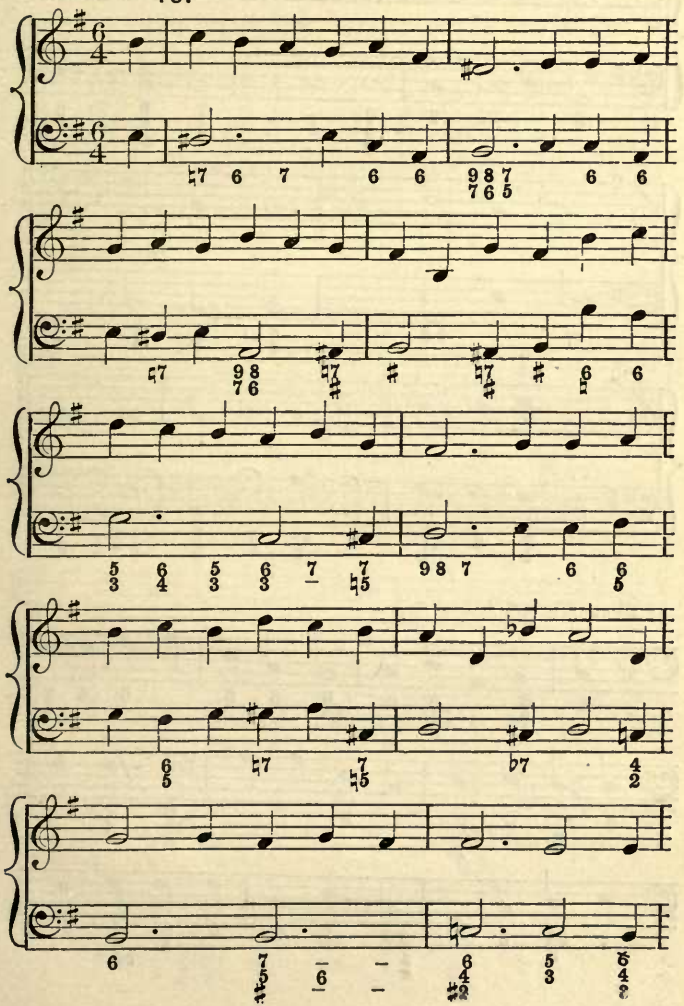
EXERCISE 48. (*In Six Parts.*)

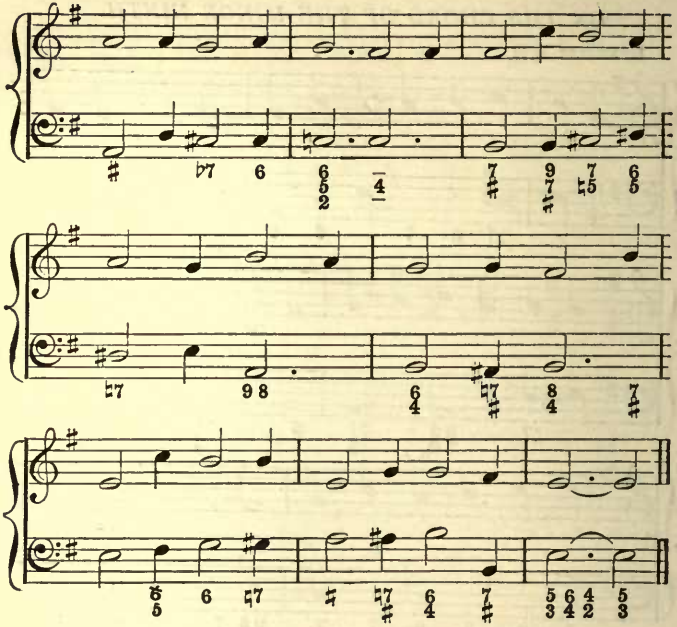


* Ninth in the upper part, with Seventh immediately below it.

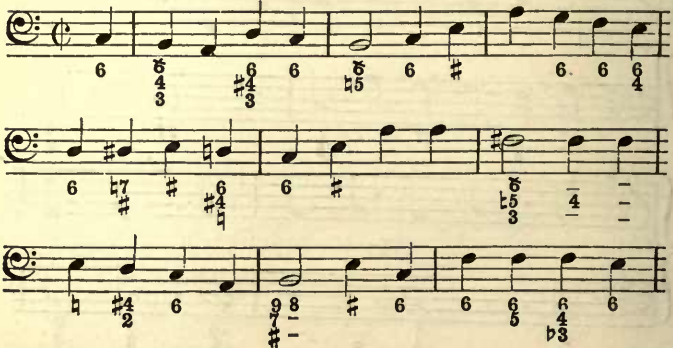
ON THE CHORD OF THE MINOR NINTH.

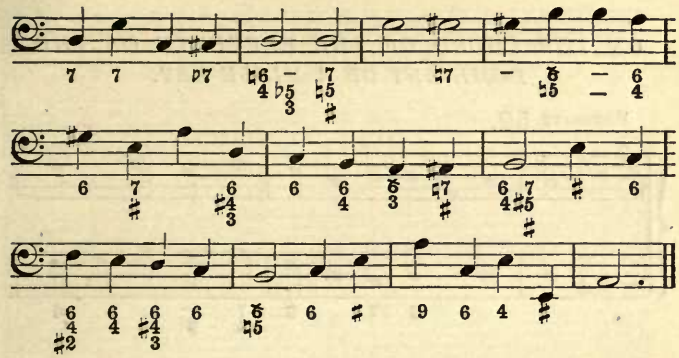
EXERCISE 49.



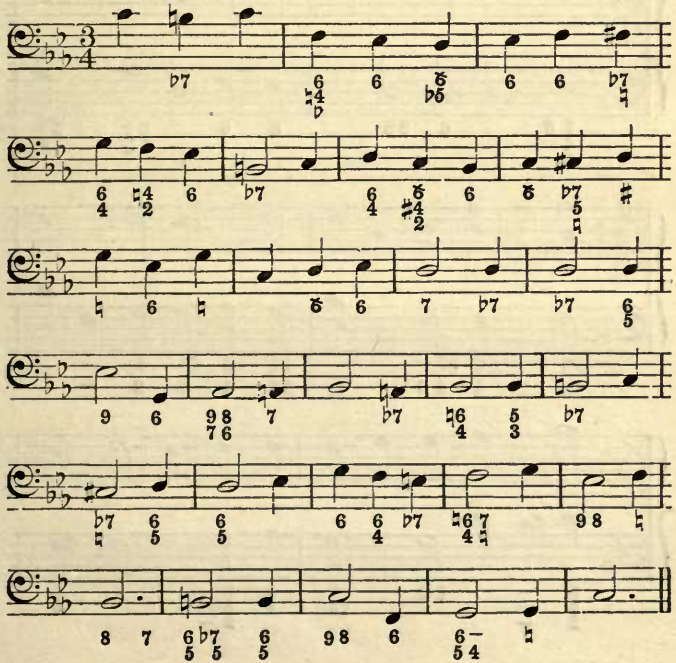


EXERCISE 50.



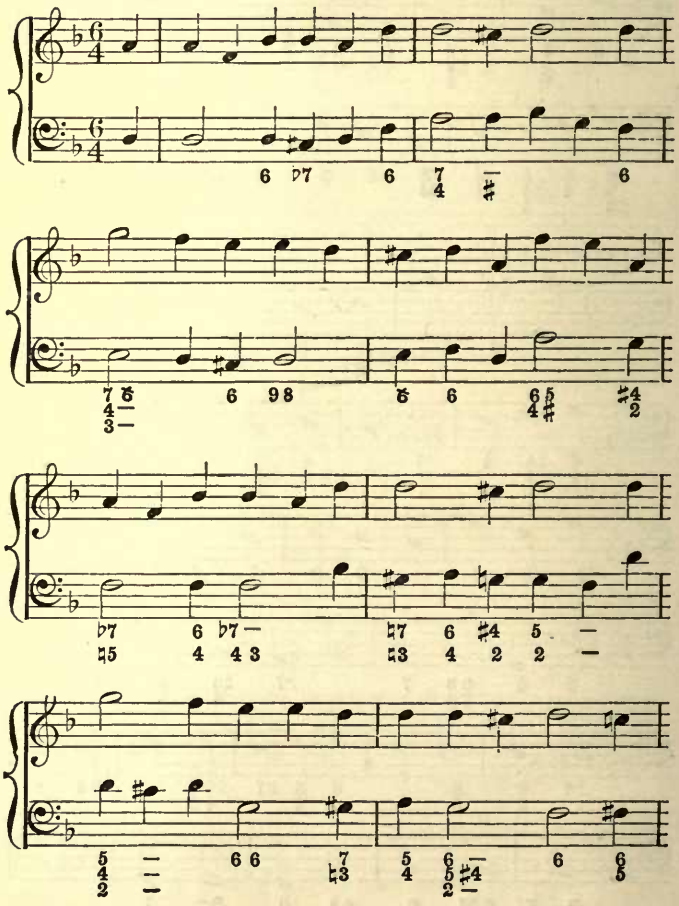


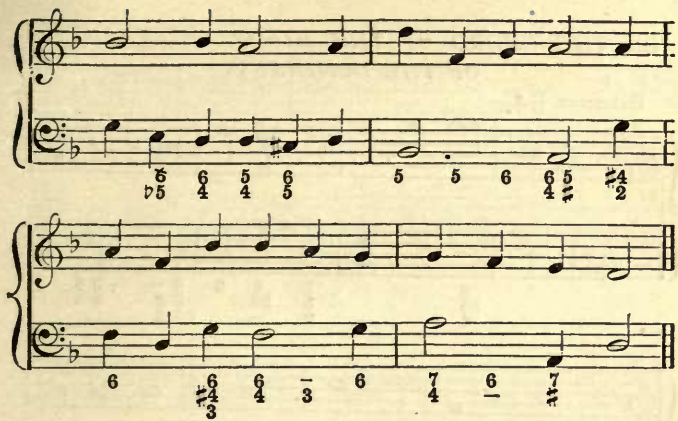
EXERCISE 51.



ON THE CHORD OF THE ELEVENTH ON THE DOMINANT OF A MINOR KEY.

EXERCISE 52.





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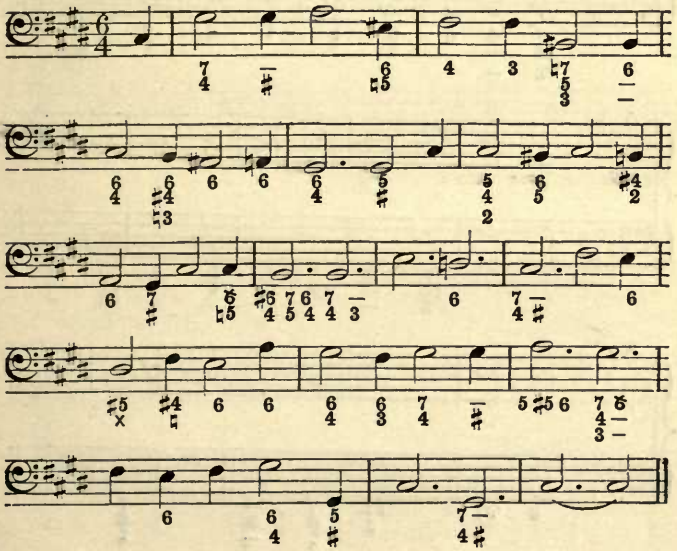
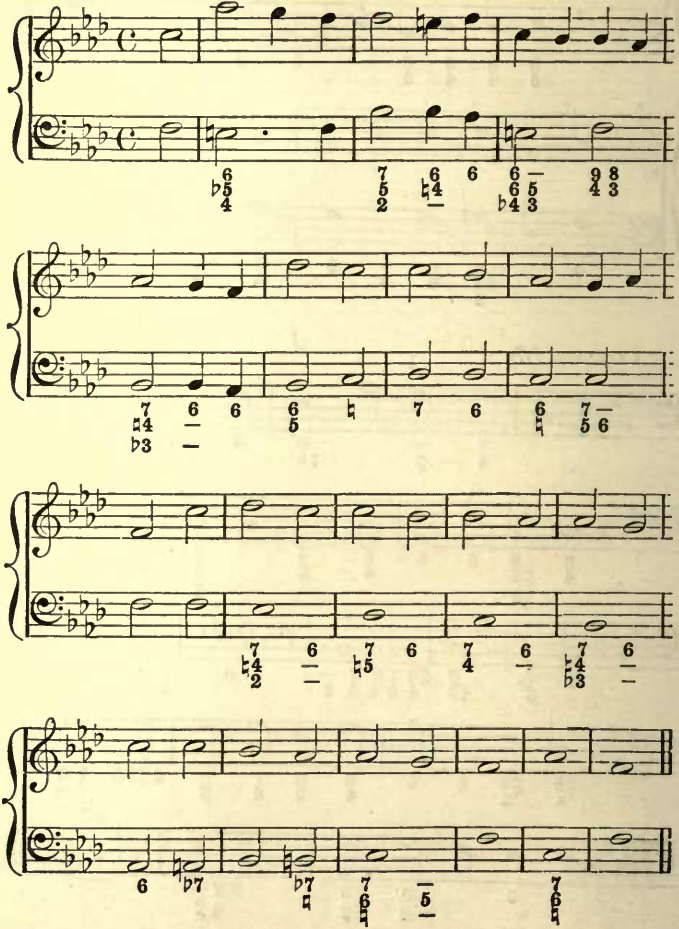


ON THE CHORD OF THE MINOR THIRTEENTH OF THE DOMINANT.

EXERCISE 54.



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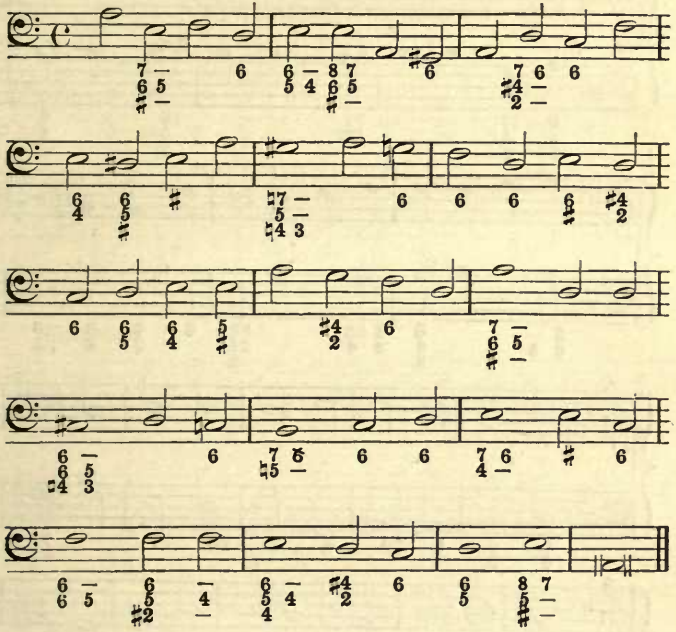
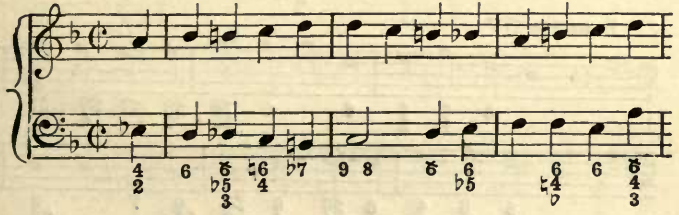
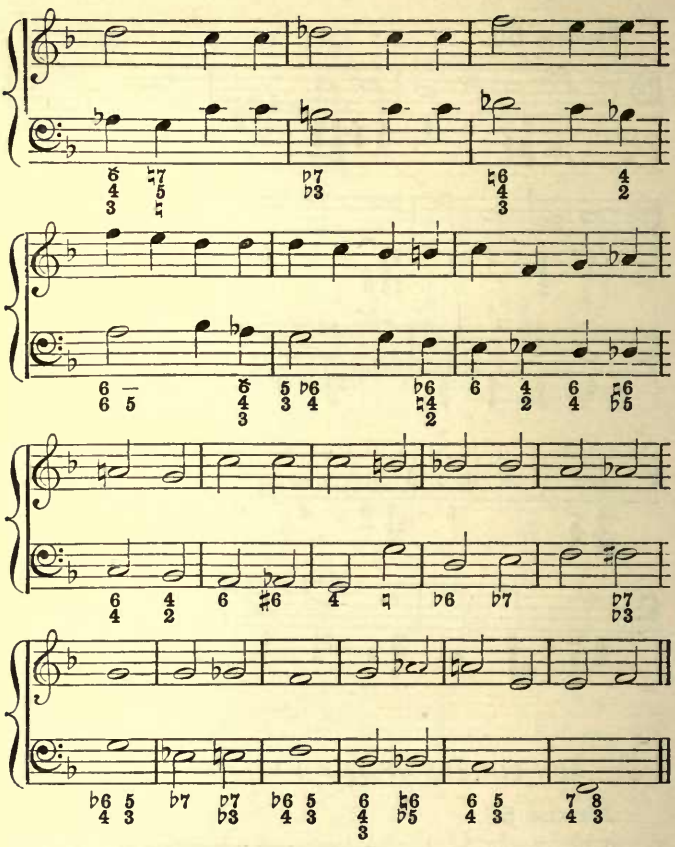


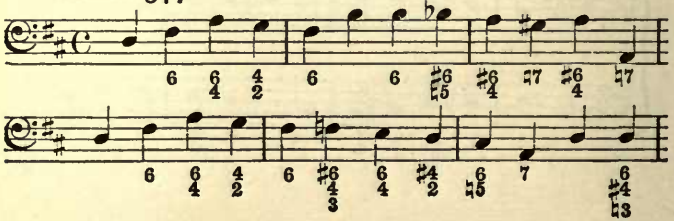
ON CHORDS OF THE EXTREME SIXTH.

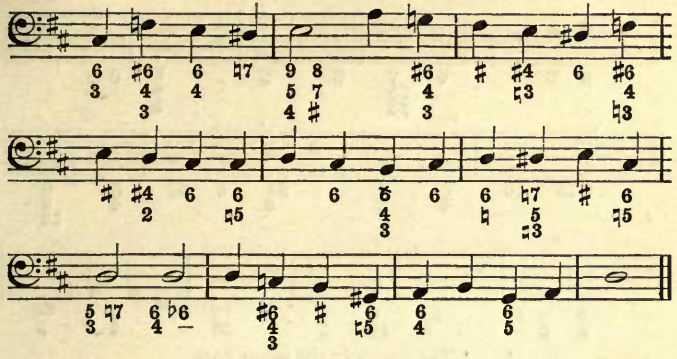
EXERCISE 56.





Exercise 57.





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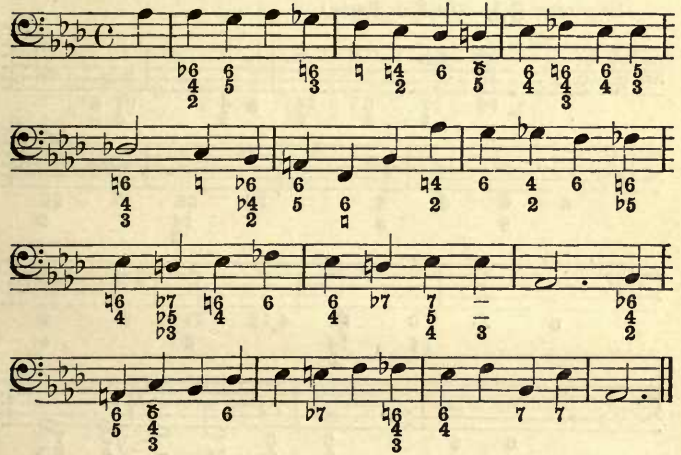
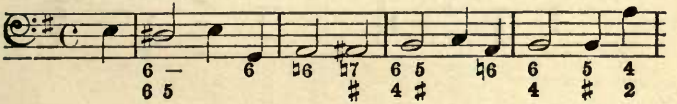
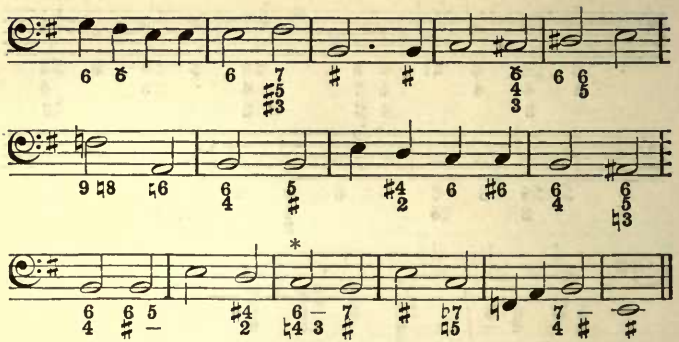


ON THE CHORD OF THE NEAPOLITAN SIXTH.

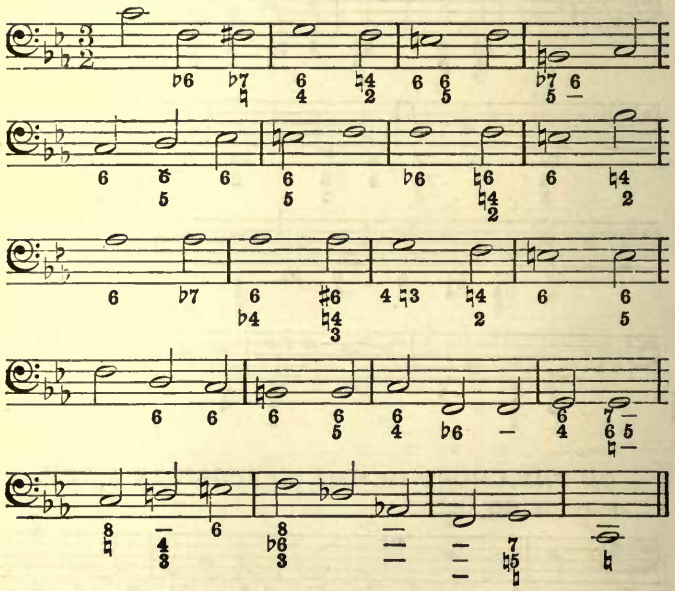
EXERCISE 59.





* The fourth in the upper part.

EXERCISE 60. (*In Five Parts.*)



QUESTIONS
FOR EXAMINATION.

QUESTIONS FOR EXAMINATION.

CHAPTER I.

What is the difference between a musical Sound and a Noise?

In what respects do Sounds differ from each other?

What causes difference of Pitch?

What is the use of a Stave?

How is Pitch determined absolutely?

Which C Clef is in most common use; and why should it be retained?

For what is the Alto Clef used?

For what is the Bass Clef used?

How does a dot affect a note? What is the effect of a double dot?

What is the use of a Metronome?

Define "Accent," "Bar," "Double Bar," "Rhythm."

Define "Time." Give the subdivisions of Duple and Triple Time.

How is the pace of music approximately determined, and how is intensity of Sound regulated?

CHAPTER II.

Define "Octave."

Into how many parts is an Octave divided?

What is a Degree?

Define "Scale."

What is a Chromatic Scale?

What is a Diatonic Scale? Explain the origin of the Normal Scale.

Why are Sharps and Flats necessary?

What is the "Signature"?

What is an Accidental, and how far does its influence extend? How is a Double Sharp contradicted?

Give the Minor Scale in different forms; and explain the construction of the modern form.

Distinguish between a Relative Minor and a Tonic Minor.

Define "Interval." Give rules for their reckoning, with explanation?

Where are Intervals in their normal state to be found?

What confusion of terms arises from the common classification of Intervals?

What changes do Intervals undergo?

Give the names which distinguish the different degrees of a Diatonic Scale.

What is the object of these names?

CHAPTER III.

What fact points to the necessity of looking to the Scale for a Theory of Harmony?

Define "Chord."

On what principle are Chords constructed?

Is an Interval smaller than a Third concordant?

Define "Discord," "Resolution." Show how Discord may be implied by an Interval?

What Note by its presence limits the Resolution?

On what method can Chords be best arranged for purposes of reference?

What other Note besides the Tonic is a generator of Chords?

What Note is the probable cause of the importance of the Dominant?

What is the original position of a Chord?

What is the Root or Ground-note?

Is a Chord affected by the position of its upper Notes?

Define "Inversions;" how are Inversions reckoned?

Give a general rule for finding the number of Inversions of a Chord.

CHAPTER IV.

Give an arrangement of the Scale which shall exhibit the formation of Chords.

What is a common Chord?

What is the Chord of the Major Seventh?

Distinguish between the Chord of the Major Seventh and Suspended Subtonic.

Give examples?

What is the Chord of the Ninth on the tonic?

How can it be distinguished from Major Ninth on the Dominant?

Give examples of Inversions of Chord of Major Ninth on Tonic.

What is the Chord of the Eleventh on the Tonic?

What is it generally called; and why?

Give examples of its different forms.

What is the Chord of the Major Thirteenth on the Tonic? What is its simplest form, and how named?

How can elliptical forms of Chord of the Major Thirteenth be distinguished from Inversions of Common Chord of Submediant?

Give examples of this Chord and its Inversions.

CHAPTER V.

What Chord is the first Dominant Discord? Give examples of it.

Distinguish between the Chord of the Dominant Major Ninth and Tonic Ninth.

What is the Chord of the Seventh on the Leading-Note more properly termed?

Give examples of the Chord of the Dominant Ninth and its Inversions.

Of what Intervals does the Chord of the Dominant Eleventh consist? Give examples of its different forms.

Is the first Inversion frequently met with?

Give an account of the Chord of the added Sixth.

How is the Dominant Eleventh frequently resolved?

Of what Intervals does the Chord of the Major Thirteenth on the Dominant consist?

What is it generally termed, when the Ninth and Eleventh are omitted?

Give examples of its Inversions.

CHAPTER VI.

Account for the fact that Discords of the Series formed by the Minor Scale are often to be found in a Major Key.

Do intervals derived from the Tonic of a Minor Key become discordant with the Dominant?

How can the Ground-Note of a doubtful Chord be determined?

What is the Chord of the Subtonic of a Minor Key? Give examples of it.

Why does the Subtonic of the Minor Scale not sometimes descend as did the Seventh of the Major Tonic Series?

What is the Chord of the Major Ninth and Minor Third?

Give examples of it and its Inversions.

Of what Intervals does the Chord of the Tonic Eleventh in the Minor Key consist?

What name would be generally given to it?

Give examples of this Chord and its Inversions?

Why is the third Inversion not in use?

Of what Intervals does the Chord of the Tonic Minor Thirteenth consist?

Give examples of this Chord and its Inversions.

CHAPTER VII.

Of what does the Dominant Common Chord in a Minor Key consist?

What is the result of its character?

Give examples of a Chord of Dominant Seventh and its Inversions resolving into the Minor.

Of what Intervals does the Chord of the Minor Ninth consist?

May it resolve into the Major Key?

What note is generally omitted in its Inversions?

Give Examples of it and its Inversions.

Of what Intervals does the Chord of the Dominant Eleventh in the Minor key consist?

Is the first Inversion in use?

Give examples of this Chord and its Inversions.

Of what Intervals does the Chord of the Minor Thirteenth on the Dominant consist?

What custom sometimes leads to a doubtful appearance of this Chord?

How is the Minor Thirteenth sometimes resolved?

What other Discord is often similarly treated?

Give examples of the Chord of the Minor Thirteenth and its Inversions.

What is meant by a "Doubtful Chord"?

Give an example.

What is the Chord of the Minor Ninth and Major Thirteenth?

Into what two classes were Discords formerly divided?

Why was this division bad?

What was meant by a Retardation?

Define "Discord of Suspension."

How may Suspensions be derived?

Can Suspensions change their character?

What is a "doubtful Chord"?

CHAPTER VIII.

Of what are many of the Chords with a double Ground-note formed?

Give reasons for the derivation of these Chords.

If the Supertonic has any value as a Ground-Note, what name would better express its function?

Write out the three common forms of the Chords of the Augmented Sixth.

Give examples of them in different positions.

Give another double-root Chord, originally introduced as a Suspension.

CHAPTER IX.

How are Relative Chords derived from the Scale? Give a list of them.

Define "Relative Chords," and "Relative Keys."

What Relative Chords are formed from the Minor Scale?

What is an Enharmonic Change? and an Enharmonic Modulation?

Distinguish between the use of the word Enharmonic in the expressions "Enharmonic Scale," "Enharmonic Modulation."

What Chord is, in its Inversions, specially adapted for Enharmonic Modulation?

Account for the omission of the Ground-Note in its Inversions.

Give examples of the Enharmonic Changes of which an Inversion of the Chord of the Minor Ninth is capable.

State anything remarkable as to the Ground-Notes of the enharmonically changed Chords.

Whence arises the beauty of this Chord?

And whence its usefulness?

Is there any limit to its capability for modulation?

What is the Chord of the flattened supertonic in a Minor Key?

Give examples of its use in different positions.

Are notes suspended from it into the Chord of Resolution? Give examples.

Show how a Note is sometimes suspended into it.

CHAPTER X.

Define " Discord," " Discordant note," " Resolution."

Give examples of some of the possible Resolutions of the Chord of the Dominant Seventh. Classify them.

What is the peculiarity of the ascending Minor Seventh?

Does the apparently fixed Progression of the discordant note of the Dominant Seventh limit the number of resolutions of which the chord is capable?

State generally how freedom of Resolution of a Discord is obtained.

Is any other result obtained by the omission of the Ground-Note?

To what may we look forward as a possible reason for the creation of a new literature of music?

When are consecutive Octaves forbidden, and why?

Show that the reason generally assigned for the unpleasantness of consecutive Major Fifths is incorrect.

Give examples of Consecutive Fifths not producing an unpleasant effect. Classify them.

How many kinds of Motion are there?

Give an unquestionable reason why consecutive Fifths should not be frequently used.

Define " False Relation," and give examples in which its introduction is not unpleasant.

Define Cadence.

What is an authentic Cadence, a Plagal Cadence, the Half-close?

Give examples of Imperfect Cadences formed by a Tonic Chord preceded by a Relative Chord, or the Dominant of a Relative Chord.

Also where a Relative Chord of the Minor Key precedes the Major Tonic Chord.

CHAPTER XI.

Give three important facts which explain various combinations and progressions.

Define "Passing-Notes."

Show that it is necessary to limit the use of the term.

What are Auxiliary Notes?

Define "Sequence."

How many kinds of Sequence are there? Give examples.

Define "Sustained-Note." Is its use confined to the lowest part of a musical sentence?

What is a Double and Triple Sustained-note?

CHAPTER XII.

What constitutes a Modulation?

Does the form of the Major Diatonic Scale influence Modulation?

What part of the Octave determines the Key, and why?

How does the form of the Scale account for the frequent use of Dominant Discords.

How many kinds of Modulation are there? Explain them.

How can a rapid Modulation be obtained?

What two tendencies have an important influence on modern Progressions?

When is an Enharmonic Modulation absolutely necessary?

CONCLUSION.

Has the form of the Scale ever varied ?

Of what are all Chords formed ?

What connection is there between Relative Chords and the form of the Scale ?

What influences the succession of Chords ?

What are the functions of the two Leading-Notes found in the Diatonic Scale ?

Are there any " Fundamental Discords " ?

To what class of Chords should the term " Suspension " be limited ?

What is a " Licence " ?

What is the nucleus of every Discord ?

Define " Ground-Note," or " Root."

Need Discords be prepared ?

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